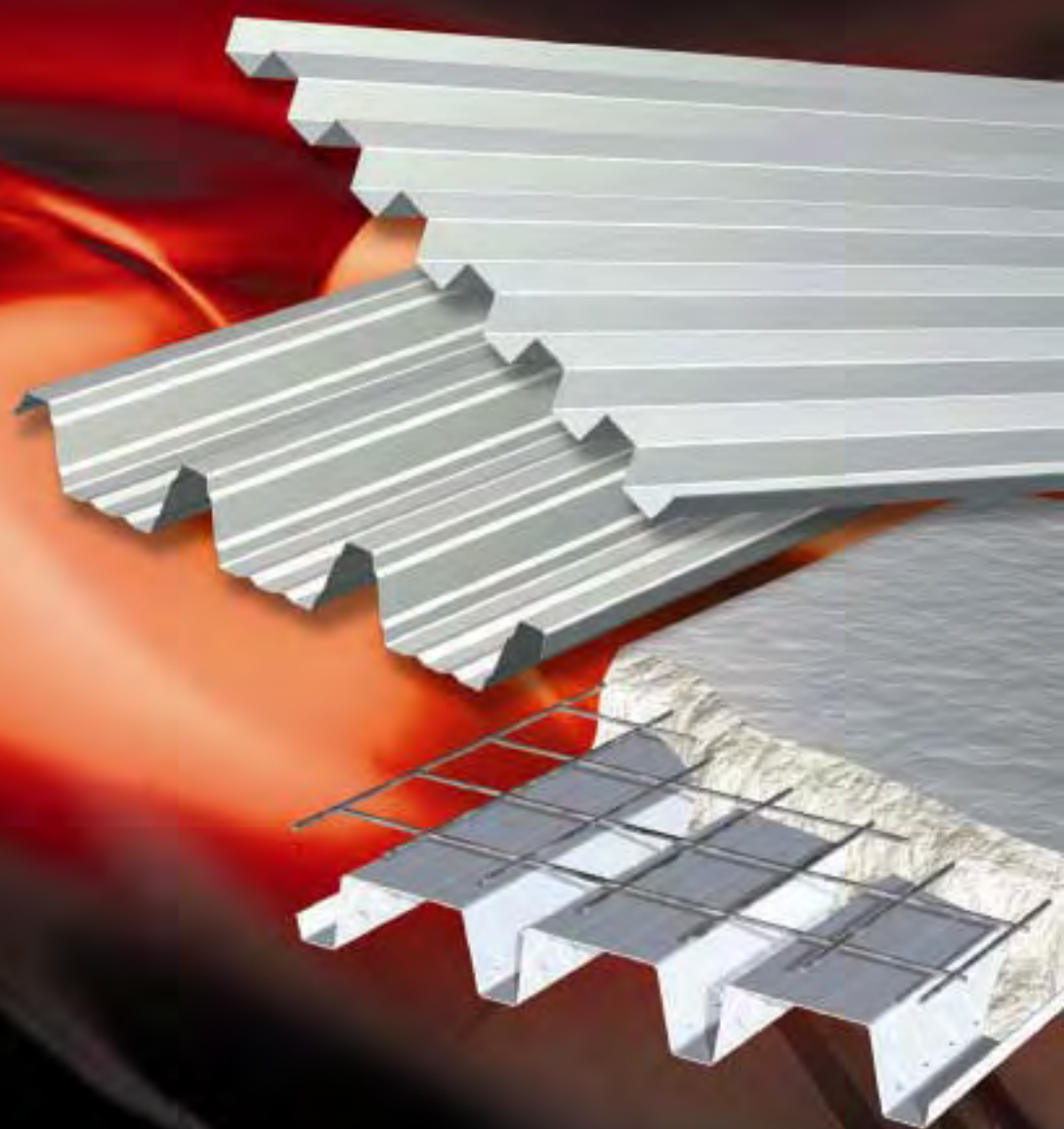


*italpannelli*



**ITPLAMIERE**

Coperture e Rivestimenti

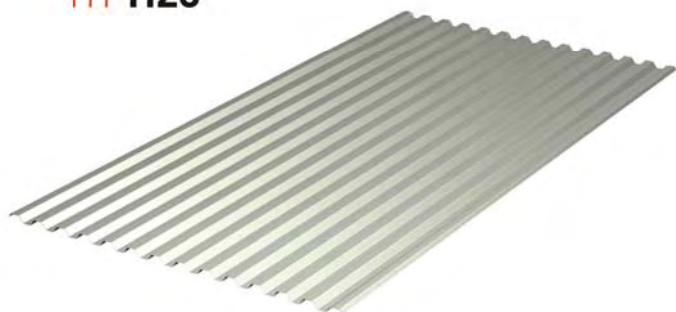
# ITPLAMIERE

Gamma completa

Lamiere grecate per coperture e rivestimenti  
in accordo norma UNI EN 14782

Corrugated sheets for roofing and cladding  
according to UNI EN 14782

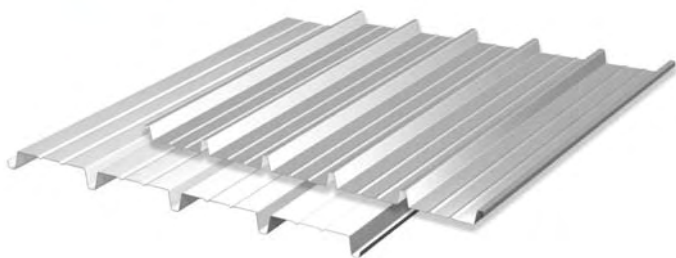
**ITPH20**



**ITPH28**



**ITPH38**



**ITPH40**



**ITPH55**



**ITPH75**



**ITPH106**



**ITPMON028**

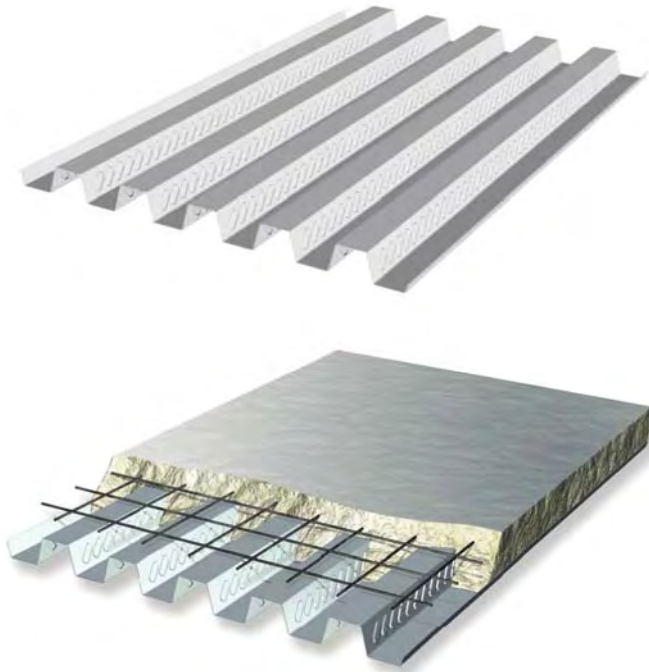


Lamiere grecate strutturali per solai collaboranti in accordo norma EN 1090-1



Collaborating trapezoidal steel sheets to be used for composite floor steel/concrete according to EN 1090-1

## ITPH55 BETON



Organismo Notificato/Notified Body N. No. 0474  
RINA Services S.p.A.  
Via Genova, 12 - 10128 Genova (GE)  
Italy

**CERTIFICATO DI CONFORMITÀ DEL CONTROLLO DELLA PRODUZIONE IN FABBRICA /  
CERTIFICATE OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL**  
N. No. 0474-CPR-0590

In conformità al Regolamento N. 2002/11/CE del Parlamento Europeo e del Consiglio del 8 marzo 2011 (Regolamento  
Prodotto da Costruttore o CPT), questi certificati si applica al prodotto da costruzione /  
In compliance with Regulation No. 2002/11/EC of the European Parliament and of the Council of 8 March 2011 (the  
Construction Products Regulation or CPR), this certificate applies to the construction product

**Componenti strutturali e kit per strutture di acciaio /  
Structural components and kits for steel structures**

sono descritti nell' allegato al presente certificato / as described in the annex  
prodotto dal fabbricante / produced by the manufacturer  
**ITALPANNELLI S.R.L.**  
Strada Provinciale Bonifica km 13,500 - 04010 Ancar  
nello stabilimento di produzione / in the manufacturing plant  
Strada Provinciale Bonifica km 13,500 - 04010 Ancar

Il presente certificato attesta che tutte le disposizioni riguardanti la fabbricazione e la verifica di  
descritte nell'Allegato ZA della norma /  
This certificate attests that all provisions concerning the assessment and verification of  
described in Annex ZA of the standard

**EN 1090-1:2009/A1:2011**

relativo al sistema 2\*, sono applicate a che / under system 2\*, are  
applied to the system

Il controllo della produzione in fabbrica soddisfa tutti i requisiti /  
the factory production control fulfills all the prescribed requirements

Il presente certificato è stato emesso in prima volta il 25/09/2014 ed ha validità fino a che /  
this certificate of the production in factory is issued for the first time on 25/09/2014 and will remain valid as long as the test and  
control requirements included in the harmonized standard set out above, used to assess the  
characteristics, do not change, and the product, and the manufacturing conditions in the plant

Genova, 25/09/2014  
Revisione n. / Revision no.: 0

RINA Services S.p.A.  
Strada Provinciale Bonifica S.p.A.  
Via Genova, 12 - 10128 Genova

C.F. / P. IVA: 01128040100  
Cap. Soc. / Share Capital: € 1.000.000,00

tel. +39 010 530011  
www.rina.it

Organismo Notificato/Notified Body N. No. 0474  
RINA Services S.p.A.  
Via Genova, 12 - 10128 Genova (GE)  
Italy

**ALLEGATO AL CERTIFICATO DI CONFORMITÀ DEL CONTROLLO DELLA PRODUZIONE IN FABBRICA /  
ANNEX TO CERTIFICATE OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL**  
N. No. 0474-CPR-0590

**DESCRIZIONE DEI PRODOTTI OGGETTO DEL CERTIFICATO /  
DESCRIPTION OF PRODUCTS TO WHICH THE CERTIFICATE REFERS**

|   |  |
|---|--|
| <b>Tipologia componenti /<br/>Type of components</b>  | Lamiere grecate per solai composti acciaio-calcestruzzo<br>Manufactured in sections suitable for composite structures<br>Single sheet for steel-concrete collaborating floor<br>Welded steel components for structural works |
| <b>Norma - requisiti tecnici<br/>Standard - technical requirements</b>                              | EN 1090-1 / EN 1090-2  |
| <b>Classi di esecuzione /<br/>Execution classes</b>   | EXC1, EXC2, EXC3   |
| <b>Metodi di Marcatura CE /<br/>Marking CE marking</b>  | 1, 3e, 3b  |
| <b>Procedimenti di saldatura<br/>(EN ISO 4063)<br/>Welding process(es)<br/>EN ISO 4063</b>          | 135  |
| <b>Materiali base<br/>(EN ISO 15608)<br/>Parent material(s)<br/>EN ISO 15608</b>                    | Gruppi 1.1, 1.2<br>Group 1.1, 1.2  |
| <b>Monitore del coordinatore di<br/>saldatura /<br/>Name of responsible welding<br/>coordinator</b> | MATTIOLI Pasquale  |

Genova, 25/09/2014  
Revisione n. / Revision no.: 0

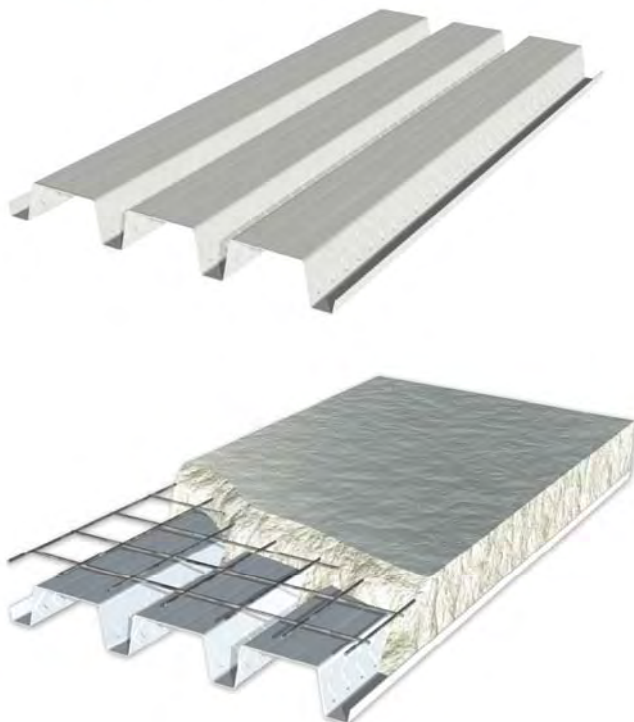
RINA Services S.p.A.  
il Direttore Tecnico / Technical manager  
  
(Ing. Paolo SALZA)

RINA Services S.p.A.  
Strada Provinciale Bonifica S.p.A.  
Via Genova, 12 - 10128 Genova

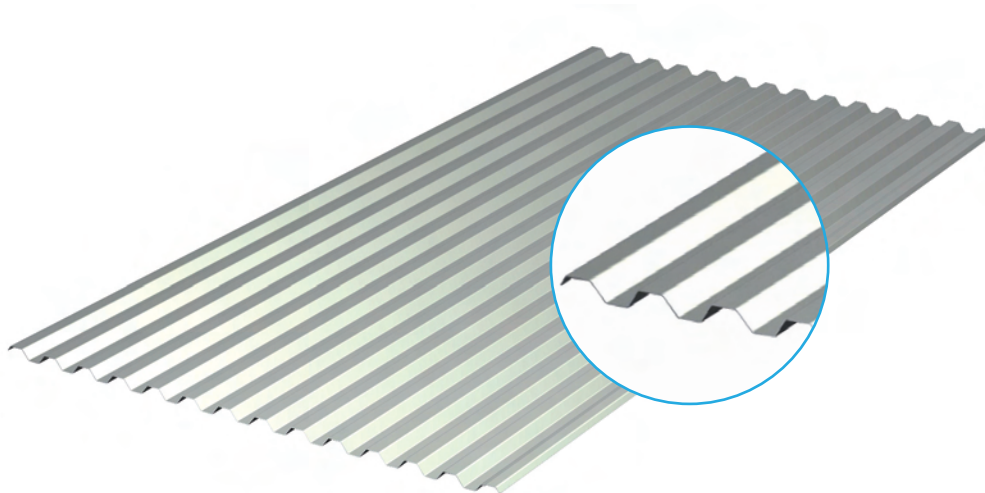
C.F. / P. IVA: 01128040100  
Cap. Soc. / Share Capital: € 1.000.000,00

tel. +39 010 530011  
www.rina.it

## ITPH75 BETON



www.italpannelli.it

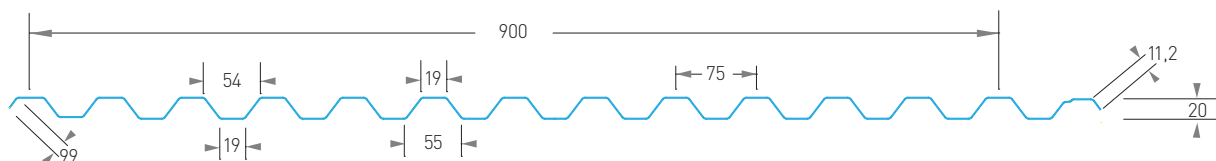


**[14 Greche/Ribs]** - Passo greche / Ribs step 75 mm  
Modulo utile / Working width 900 mm

Particolare del giunto / Joint view



DISEGNO TECNICO - TECHNICAL DRAWING

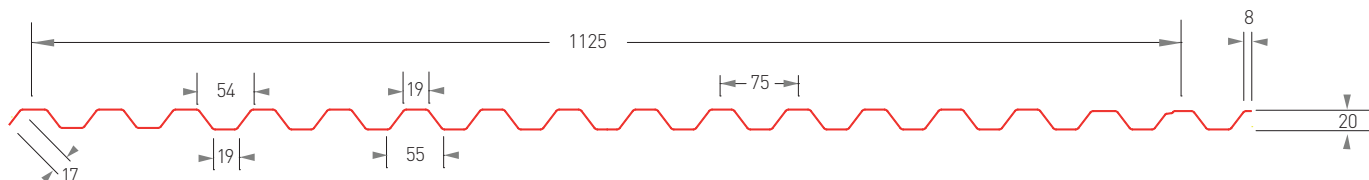


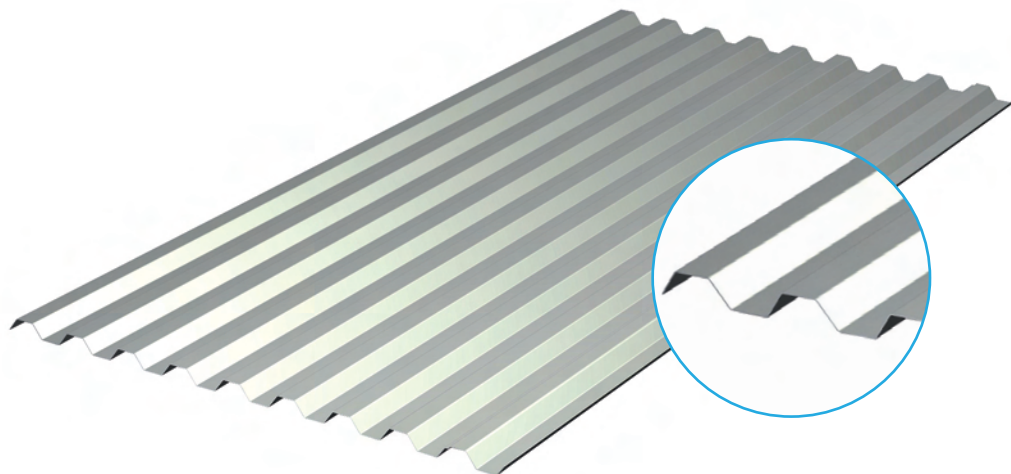
**[16 Greche/Ribs]** - Passo greche / Ribs step 75 mm  
Modulo utile / Working width 1125 mm

Particolare del giunto / Joint view



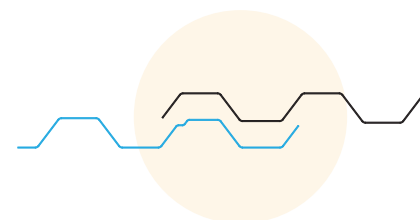
DISEGNO TECNICO - TECHNICAL DRAWING



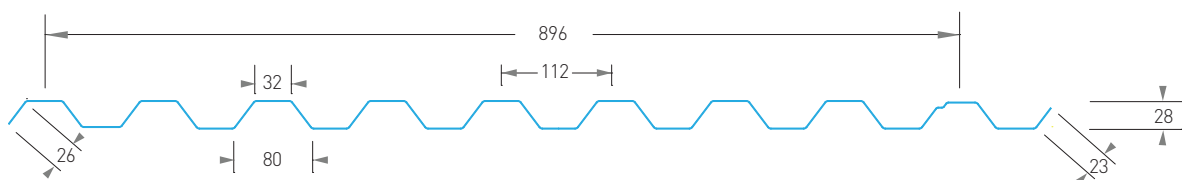


Particolare del giunto / Joint view

[**9 Greche/Ribs**] - Passo greche / Ribs step 112 mm  
Modulo utile / Working width 896 mm

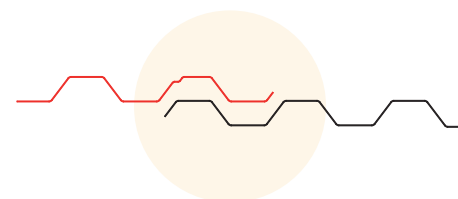


DISEGNO TECNICO - TECHNICAL DRAWING

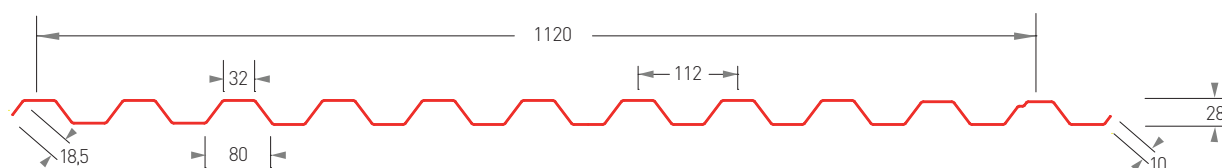


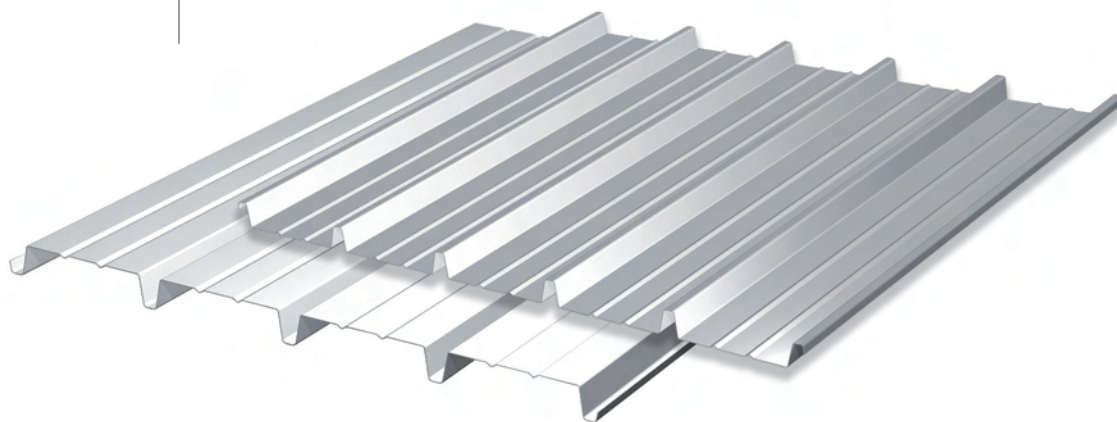
Particolare del giunto / Joint view

[**11 Greche/Ribs**] - Passo greche / Ribs step 112 mm  
Modulo utile / Working width 1120 mm

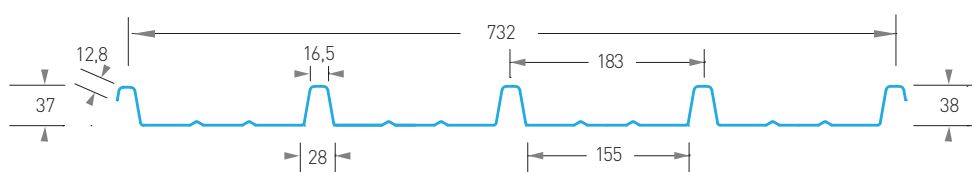


DISEGNO TECNICO - TECHNICAL DRAWING





## ITP H38 / 732 / D

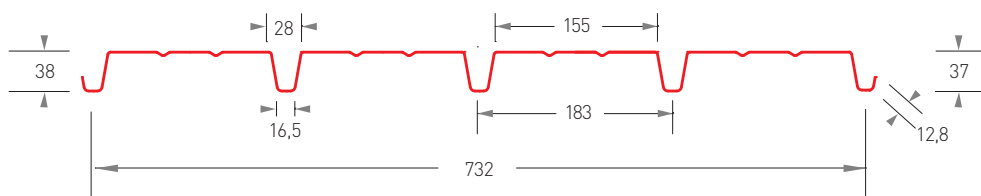


**[5 Greche/Ribs]**

Passo greche  
Ribs step 183 mm

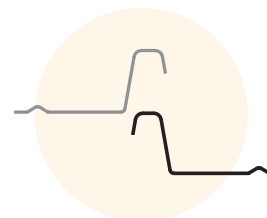
Modulo utile  
Working width 732 mm

## ITP H38 / 732 / R



DISEGNO TECNICO - TECHNICAL DRAWING

Particolare del giunto / Joint view

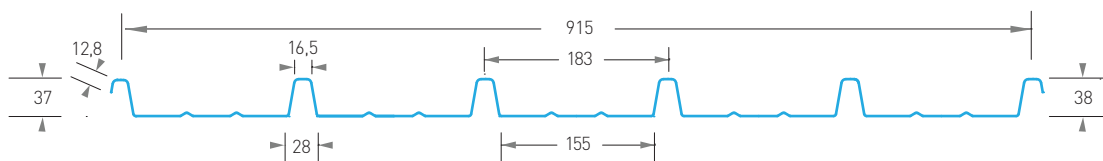


**[6 Greche/Ribs]**

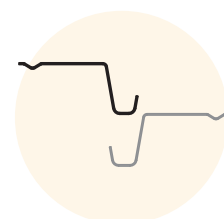
Passo greche  
Ribs step 183 mm

Modulo utile  
Working width 915 mm

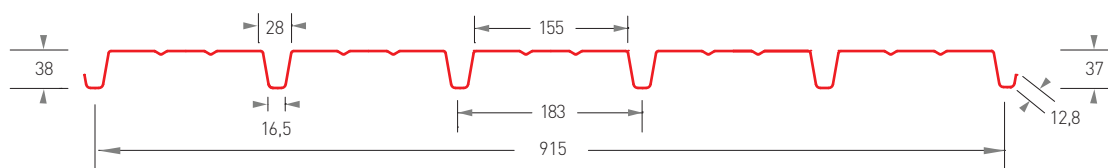
## ITP H38 / 915 / D



Particolare del giunto / Joint view



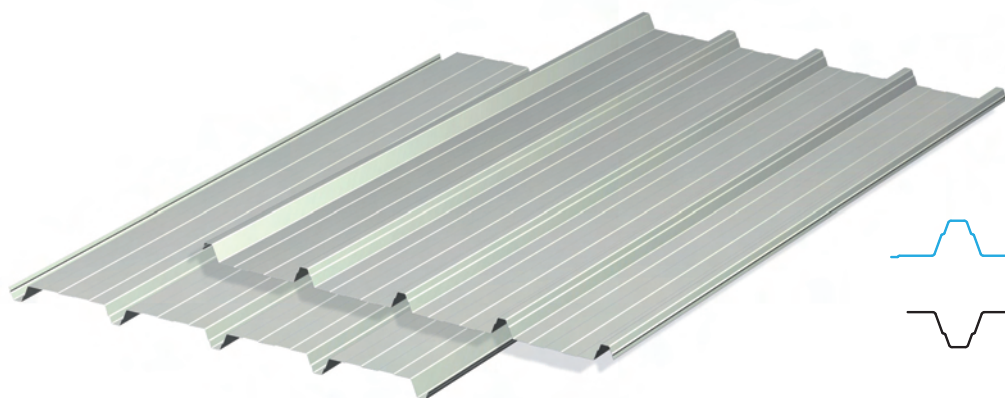
## ITP H38 / 915 / R



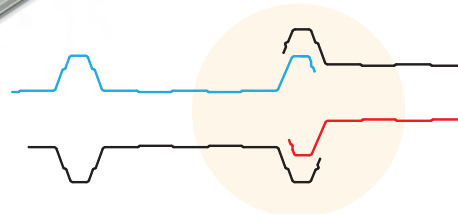
DISEGNO TECNICO - TECHNICAL DRAWING

# ITP H40 e H40 Pda/1000

[5 greche/Ribs] Passo greche / Ribs step 250 mm  
Modulo utile / Working width 1000 mm

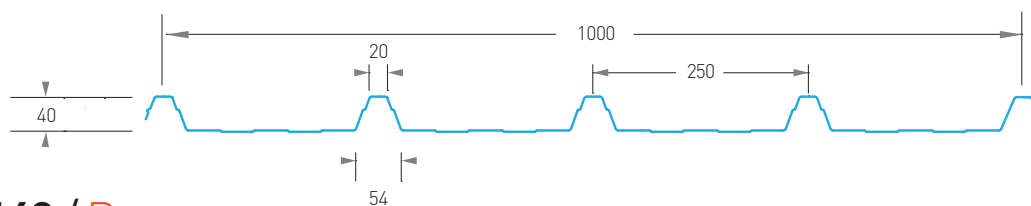


Particolare del giunto / Joint view

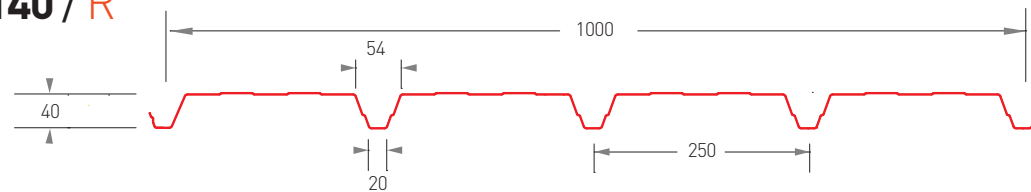


## ITP H40 / D

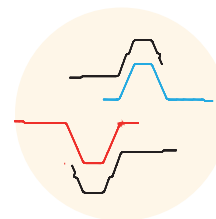
DISEGNO TECNICO - TECHNICAL DRAWING



## ITP H40 / R

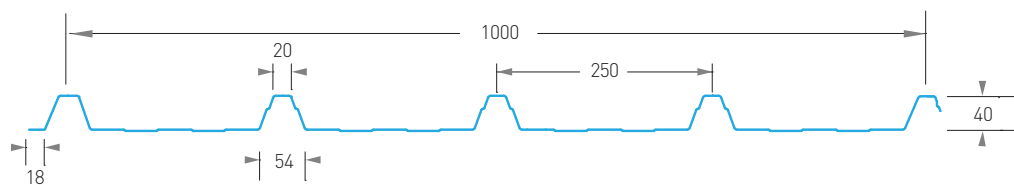


Particolare del giunto / Joint view



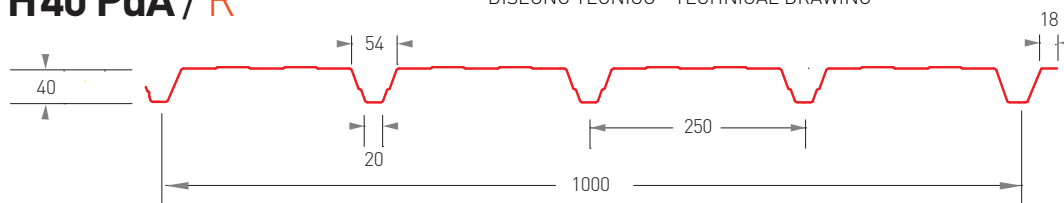
## ITP H40 PdA / D

DISEGNO TECNICO - TECHNICAL DRAWING

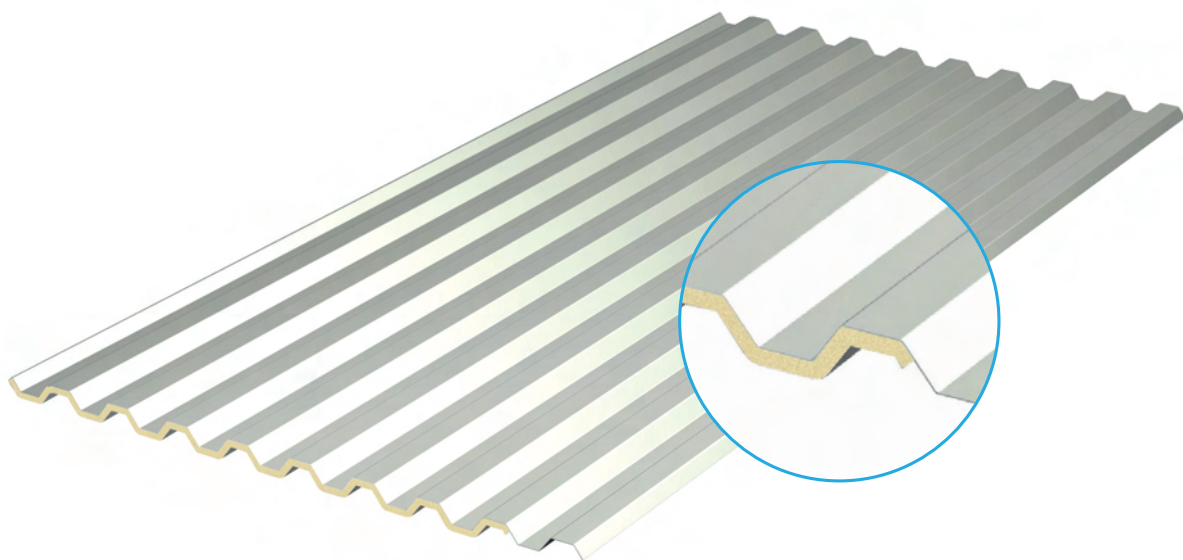


## ITP H40 PdA / R

DISEGNO TECNICO - TECHNICAL DRAWING



LASTRA GRECATA PROFILO 28 RIVESTITA DA 1 CM DI POLIURETANO NUDO  
 SINGLE SHEET PROFILE 28 COVERED BY 1 CM OF BARE PU



[9 Greche/Ribs] - Passo greche / Ribs step 112 mm - Modulo utile / Working width 896 mm

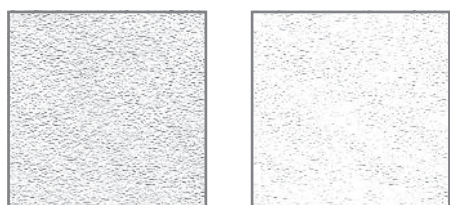
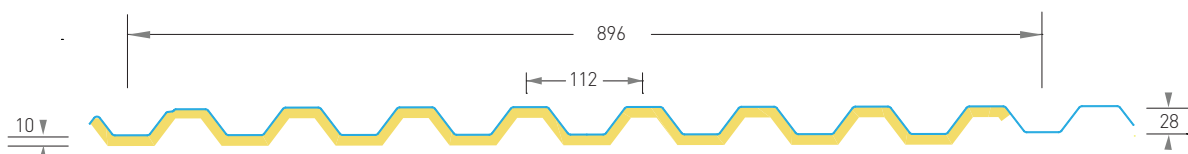
### Vantaggi rispetto ad una lamiera grecata - Advantages over bare single sheet

- Maggiore isolamento acustico - Better acoustic insulation
- Riduzione del fenomeno della condensa - Reduction of condensation phenomenal
- Maggiore resistenza alla grandine - Better resistance to hail
- Creazione tetto caldo ventilato - Realization warm ventilated roof
- Maggiore resistenza al calpestio - Better resistance to walking

Particolare del giunto - Joint view



DISEGNO TECNICO - TECHNICAL DRAWING

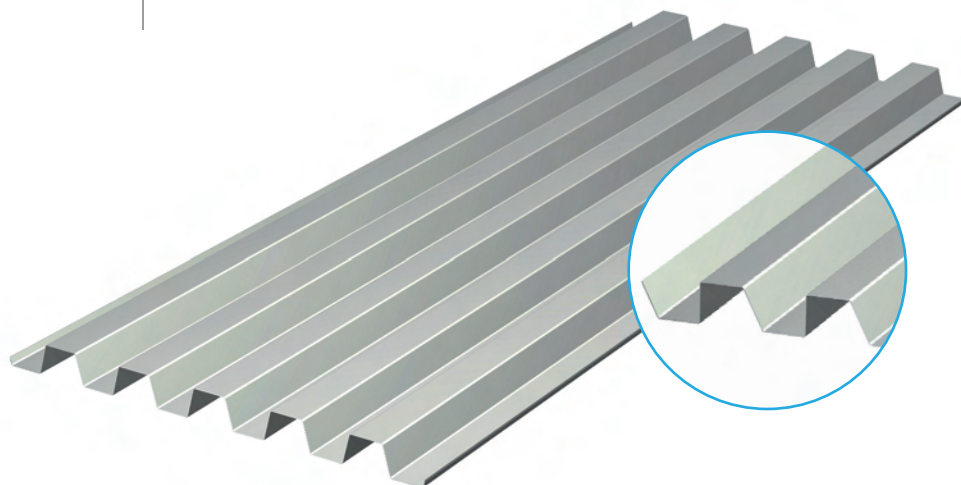


### Versioni speciali - Special version

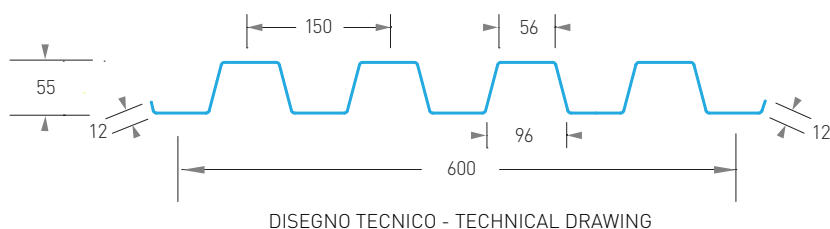
Alluminio centesimale goffrato - Centesimal embossed aluminum

- COLORE NEUTRO - NEUTRAL COLOR
- COLORE BIANCO - WHITE COLOR

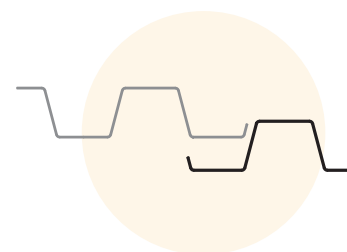




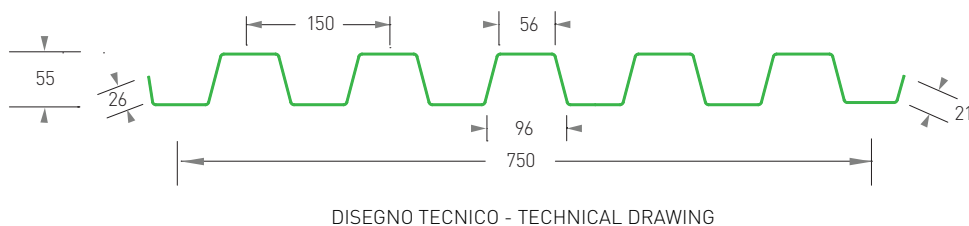
**[5 Greche/Ribs]** - Passo greche / Ribs step 150 mm  
Modulo utile / Working width 600 mm



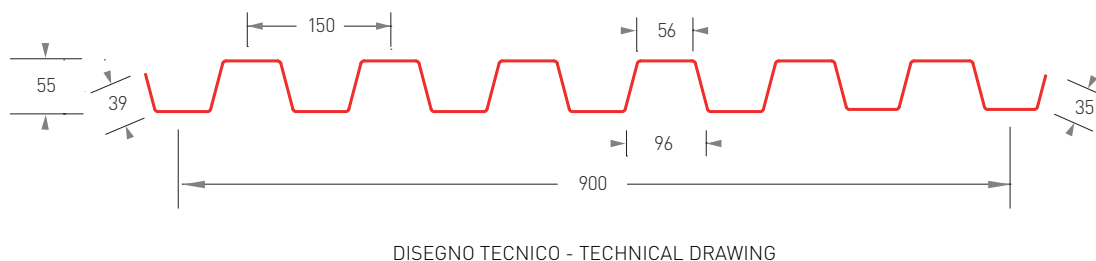
Particolare del giunto / Joint view



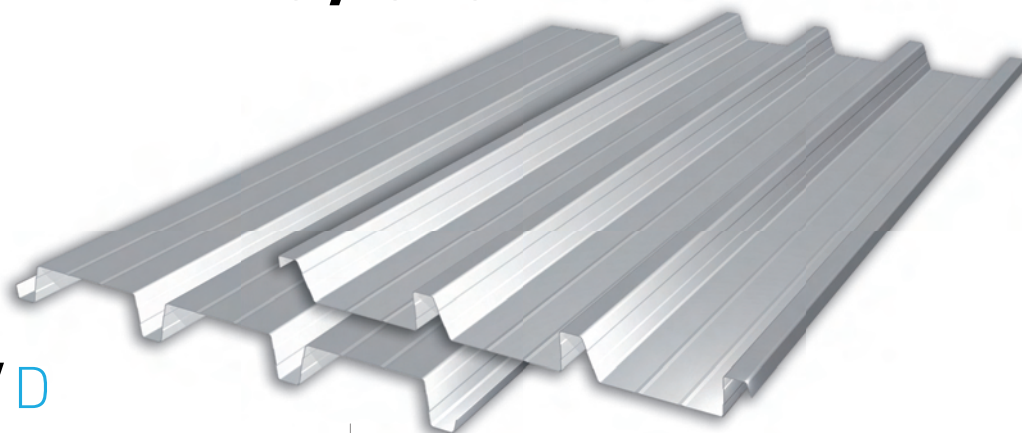
**[6 Greche/Ribs]** - Passo greche / Ribs step 150 mm  
Modulo utile / Working width 750 mm



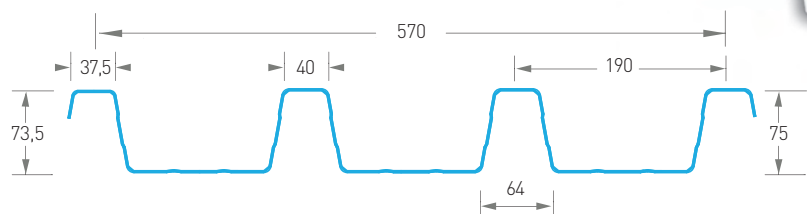
**[7 Greche/Ribs]** - Passo greche / Ribs step 150 mm  
Modulo utile / Working width 900 mm



**ITP H75 / 570**  
**ITP H75 / 820**



**ITP H75 / 570 / D**

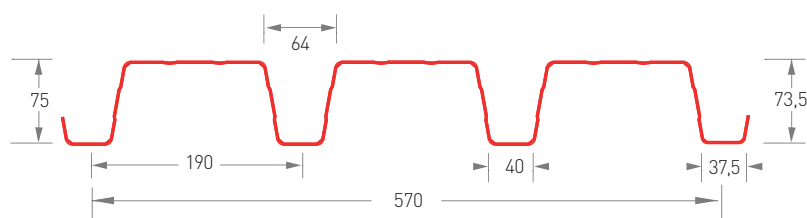


**[4 Greche / Ribs]**

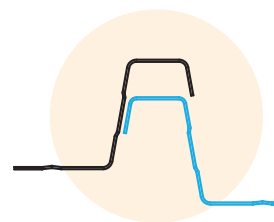
Passo greche / Ribs step 190 mm

Modulo utile / Working width 570 mm

**ITP H75 / 570 / R**

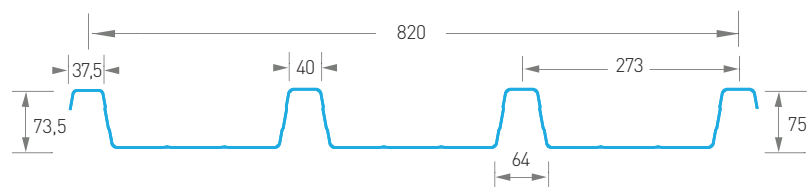


DISEGNO TECNICO - TECHNICAL DRAWING



Particolare del giunto / Joint view

**ITP H75 / 820 / D**

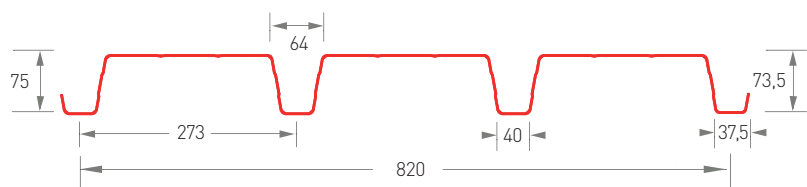


**[4 Greche / Ribs]**

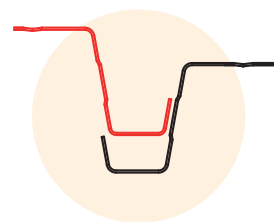
Passo greche / Ribs step 273 mm

Modulo utile / Working width 820 mm

**ITP H75 / 820 / R**



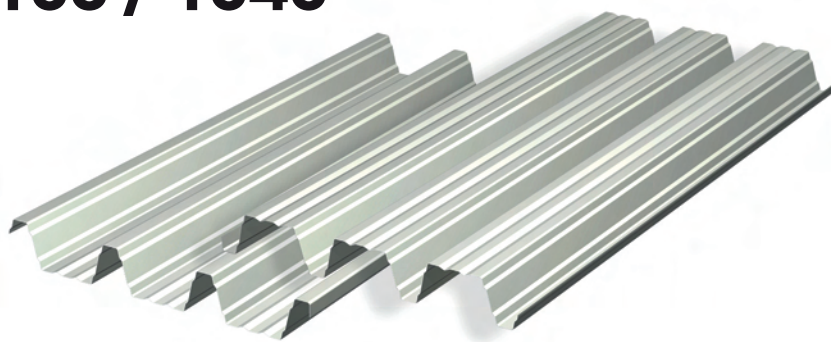
DISEGNO TECNICO - TECHNICAL DRAWING



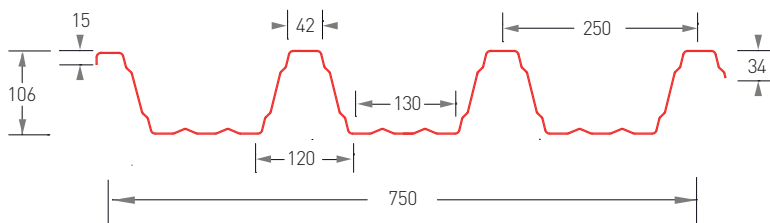
Particolare del giunto / Joint view

# ITPH106 / 798

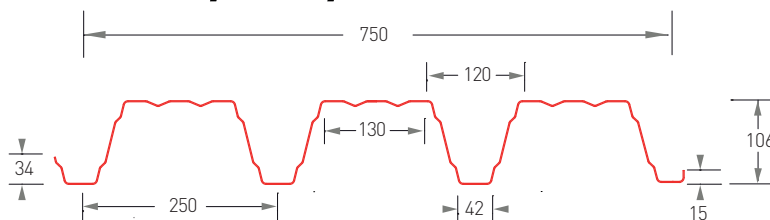
## ITPH106 / 1040



### ITP H106 / 798 / D



### ITP H106 / 798 / R

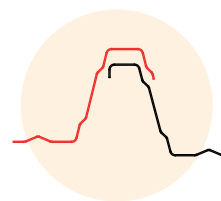


**[4 Greche / Ribs]**

Passo greche / Ribs step 250 mm

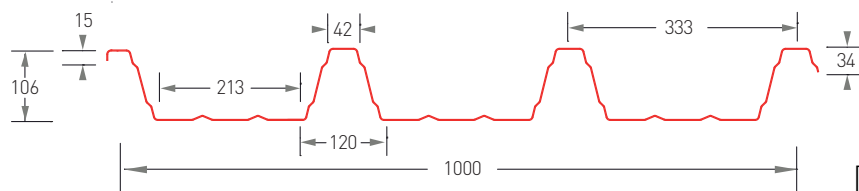
Modulo utile / Working width 750 mm

Particolare del giunto / Joint view

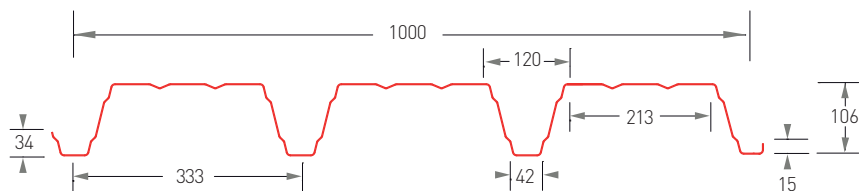


DISEGNO TECNICO - TECHNICAL DRAWING

### ITP H106 / 1040 / D



### ITP H106 / 1040 / R

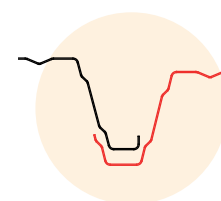


**[4 Greche / Ribs]**

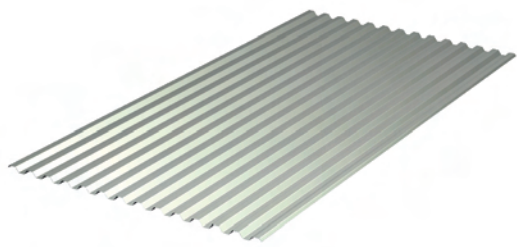
Passo greche / Ribs step 333 mm

Modulo utile / Working width 1000 mm

Particolare del giunto / Joint view



DISEGNO TECNICO - TECHNICAL DRAWING



# ITPH 20

## 1010 - 1212

Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50 | 0,60 | 0,70 | 0,80 | 1,00 | 1,20 | 0,60 | 0,70 | 0,80 | 1,00 | 1,20 |
|---|------|------|------|------|------|------|------|------|------|------|------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 4,8  | 5,8  | 6,8  | 7,7  | 9,7  | 11,6 | 2,0  | 2,3  | 2,7  | 3,3  | 4,0  |
| J <sub>v</sub> (cm <sup>4</sup> /m)                     | 3,62 | 4,36 | 4,99 | 5,66 | 6,84 | 7,89 | 4,49 | 5,12 | 5,79 | 7,02 | 8,07 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 3,53 | 4,25 | 4,87 | 5,52 | 6,67 | 7,70 | 4,38 | 5,00 | 5,65 | 6,85 | 7,87 |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 3,53 | 4,25 | 4,87 | 5,52 | 6,67 | 7,70 | 4,38 | 5,00 | 5,65 | 6,85 | 7,87 |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 4,18 | 5,08 | 5,87 | 6,73 | 8,29 | 9,76 | 5,25 | 6,03 | 6,89 | 8,52 | 9,99 |

\* peso calcolato rispetto alla larghezza totale - weight calculated relevant to total width

Tabella portata **ACCIAIO - STEEL** load tables

Tabella portate **ALLUMINIO - ALUMINUM** load tables

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
| 0,5 | P = Kg./m <sup>2</sup> | 630  | 255  | 120  | 65   |      |      |      |      |      |      |      |      |      |      | 245  | 90   |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
| 0,6 |                        | 795  | 325  | 155  | 80   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
| 0,7 |                        | 930  | 380  | 185  | 100  | 55   |      |      |      |      |      |      |      |      |      |      | 290  | 110  |      |      |      |      |      |      |      |      |      |      |      |  |  |
| 0,8 |                        | 1000 | 435  | 210  | 115  | 65   |      |      |      |      |      |      |      |      |      |      | 340  | 130  | 55   |      |      |      |      |      |      |      |      |      |      |  |  |
| 1,0 |                        | -    | 525  | 260  | 140  | 80   |      |      |      |      |      |      |      |      |      |      | 425  | 165  | 70   |      |      |      |      |      |      |      |      |      |      |  |  |
| 1,2 |                        | -    | 610  | 300  | 160  | 90   | 55   |      |      |      |      |      |      |      |      |      | 490  | 190  | 85   |      |      |      |      |      |      |      |      |      |      |  |  |

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| 0,5 | P = Kg./m <sup>2</sup> | 590  | 360  | 240  | 160  | 110  | 65   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6 |                        | 780  | 475  | 315  | 215  | 135  | 85   | 55   |      |      |      |      |      |      |      |      | 440  | 260  | 125  | 65   |      |      |      |      |      |      |      |      |      |  |
| 0,7 |                        | 945  | 560  | 410  | 265  | 160  | 100  | 65   |      |      |      |      |      |      |      |      | 540  | 300  | 145  | 75   |      |      |      |      |      |      |      |      |      |  |
| 0,8 |                        | 1000 | 640  | 475  | 305  | 185  | 115  | 75   | 50   |      |      |      |      |      |      |      | 650  | 350  | 165  | 90   |      |      |      |      |      |      |      |      |      |  |
| 1,0 |                        | -    | 775  | 590  | 370  | 225  | 140  | 90   | 60   |      |      |      |      |      |      |      | 855  | 430  | 210  | 110  | 60   |      |      |      |      |      |      |      |      |  |
| 1,2 |                        | -    | 900  | 700  | 425  | 260  | 165  | 110  | 70   |      |      |      |      |      |      |      | 1000 | 495  | 240  | 130  | 70   |      |      |      |      |      |      |      |      |  |

Spessore nominale  
Nominal thickness

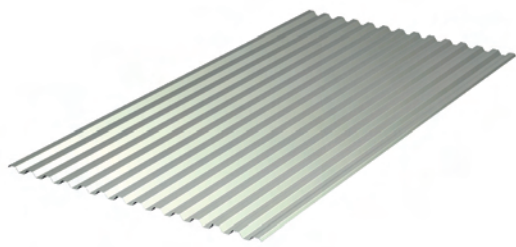
Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| 0,5 | P = Kg./m <sup>2</sup> | 725  | 445  | 250  | 135  | 80   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6 |                        | 960  | 590  | 315  | 175  | 100  | 60   |      |      |      |      |      |      |      |      |      | 490  | 195  | 90   |      |      |      |      |      |      |      |      |      |      |  |
| 0,7 |                        | 1000 | 705  | 370  | 205  | 120  | 75   |      |      |      |      |      |      |      |      |      | 575  | 230  | 105  | 55   |      |      |      |      |      |      |      |      |      |  |
| 0,8 |                        | -    | 805  | 420  | 235  | 140  | 85   | 55   |      |      |      |      |      |      |      |      | 665  | 270  | 125  | 65   |      |      |      |      |      |      |      |      |      |  |
| 1,0 |                        | -    | 975  | 510  | 285  | 170  | 105  | 65   |      |      |      |      |      |      |      |      | 820  | 335  | 160  | 80   |      |      |      |      |      |      |      |      |      |  |
| 1,2 |                        | -    | -    | 590  | 330  | 200  | 125  | 80   | 50   |      |      |      |      |      |      |      | 945  | 385  | 185  | 95   | 50   |      |      |      |      |      |      |      |      |  |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 28

## 1012 - 1233

Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50 | 0,60 | 0,70 | 0,80  | 1,00  | 1,20  | 0,60 | 0,70  | 0,80  | 1,00  | 1,20  |
|---|------|------|------|-------|-------|-------|------|-------|-------|-------|-------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 4,8  | 5,8  | 6,7  | 7,7   | 9,6   | 11,5  | 2,0  | 2,3   | 2,6   | 3,3   | 4,0   |
| J <sub>v</sub> (cm <sup>4</sup> /m)                     | 7,05 | 8,54 | 9,85 | 11,25 | 13,78 | 16,15 | 8,82 | 10,12 | 11,51 | 14,17 | 16,52 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 5,04 | 6,10 | 7,03 | 8,03  | 9,84  | 11,53 | 6,30 | 7,23  | 8,22  | 10,12 | 11,80 |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 5,04 | 6,10 | 7,03 | 8,03  | 9,84  | 11,53 | 6,30 | 7,23  | 8,22  | 10,12 | 11,80 |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 5,82 | 7,10 | 8,23 | 9,47  | 11,76 | 13,97 | 7,34 | 8,47  | 9,70  | 12,11 | 14,30 |

\* peso calcolato rispetto alla larghezza totale - weight calculated relevant to total width

Tablelle portate **ACCIAIO - STEEL** load tables

Tablelle portate **ALLUMINIO - ALUMINUM** load tables

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
| 0,5 | P = Kg./m <sup>2</sup> | 825  | 460  | 235  | 130  | 75   |      |      |      |      |      |      |      |      |      | 465  | 185  | 85   |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,6 |                        | 1000 | 600  | 295  | 165  | 95   | 60   |      |      |      |      |      |      |      |      |      | 545  | 220  | 100  | 50   |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,7 |                        | -    | 715  | 355  | 195  | 115  | 70   |      |      |      |      |      |      |      |      |      | 640  | 255  | 120  | 60   |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,8 |                        | -    | 840  | 420  | 235  | 140  | 85   | 55   |      |      |      |      |      |      |      |      | 825  | 335  | 160  | 80   |      |      |      |      |      |      |      |      |      |  |  |  |
| 1,0 |                        | -    | 1000 | 545  | 305  | 185  | 115  | 75   |      |      |      |      |      |      |      |      | 1000 | 405  | 195  | 100  | 55   |      |      |      |      |      |      |      |      |  |  |  |
| 1,2 |                        | -    | -    | 640  | 360  | 215  | 135  | 90   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
| 0,5 | P = Kg./m <sup>2</sup> | 570  | 355  | 245  | 175  | 130  | 100  | 75   | 60   |      |      |      |      |      |      | 420  | 260  | 175  | 125  | 80   |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,6 |                        | 765  | 480  | 330  | 235  | 180  | 140  | 105  | 80   | 55   |      |      |      |      |      |      | 520  | 325  | 220  | 160  | 95   | 55   |      |      |      |      |      |      |      |  |  |  |
| 0,7 |                        | 955  | 595  | 410  | 295  | 220  | 175  | 135  | 95   | 65   |      |      |      |      |      |      | 640  | 400  | 275  | 185  | 110  | 65   |      |      |      |      |      |      |      |  |  |  |
| 0,8 |                        | 1000 | 735  | 505  | 365  | 270  | 215  | 165  | 115  | 80   | 55   |      |      |      |      |      | 890  | 560  | 380  | 240  | 140  | 85   | 55   |      |      |      |      |      |      |  |  |  |
| 1,0 |                        | -    | 1000 | 690  | 495  | 365  | 290  | 210  | 145  | 105  | 75   | 55   |      |      |      |      | 1000 | 715  | 490  | 285  | 170  | 105  | 65   |      |      |      |      |      |      |  |  |  |
| 1,2 |                        | -    | -    | 825  | 585  | 505  | 365  | 250  | 175  | 125  | 90   | 65   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |

Spessore nominale  
Nominal thickness

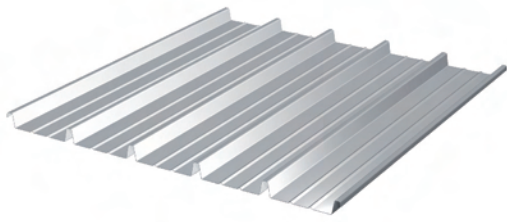
Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
| 0,5 | P = Kg./m <sup>2</sup> | 690  | 435  | 300  | 215  | 160  | 100  | 65   |      |      |      |      |      |      |      | 510  | 320  | 185  | 100  | 55   |      |      |      |      |      |      |      |      |      |  |  |
| 0,6 |                        | 930  | 585  | 405  | 295  | 205  | 130  | 85   | 55   |      |      |      |      |      |      |      | 630  | 400  | 215  | 115  | 65   |      |      |      |      |      |      |      |      |  |  |
| 0,7 |                        | 1000 | 730  | 505  | 365  | 245  | 155  | 105  | 70   |      |      |      |      |      |      |      | 775  | 490  | 255  | 140  | 80   |      |      |      |      |      |      |      |      |  |  |
| 0,8 |                        | -    | 895  | 620  | 450  | 285  | 185  | 125  | 85   | 60   |      |      |      |      |      |      | 1000 | 660  | 325  | 180  | 105  | 60   |      |      |      |      |      |      |      |  |  |
| 1,0 |                        | -    | 1000 | 845  | 600  | 370  | 240  | 160  | 110  | 75   | 55   |      |      |      |      |      | -    | 800  | 395  | 220  | 130  | 75   |      |      |      |      |      |      |      |  |  |
| 1,2 |                        | -    | -    | 1000 | 705  | 435  | 280  | 190  | 130  | 95   | 65   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 38-D

## 732 - 915

Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale *<br>Nominal thickness (mm)         | 0,50  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Peso nominale<br>Weight nominal (Kg./m <sup>2</sup> ) | 5,4   | 6,4   | 7,5   | 8,6   | 10,7  | 12,9  | 2,2   | 2,6   | 3,0   | 3,7   | 4,4   |
| J <sub>v</sub> (cm <sup>4</sup> /m)                   | 9,75  | 11,79 | 13,57 | 15,47 | 18,88 | 22,04 | 12,18 | 13,94 | 15,84 | 19,42 | 22,55 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)               | 11,50 | 13,89 | 15,96 | 18,17 | 22,10 | 25,71 | 14,34 | 16,39 | 18,59 | 22,72 | 26,29 |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)               | 3,30  | 4,00  | 4,60  | 5,25  | 6,41  | 7,49  | 4,13  | 4,73  | 5,37  | 6,60  | 7,66  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                   | 5,04  | 6,15  | 7,13  | 8,19  | 10,17 | 12,07 | 6,35  | 7,33  | 8,39  | 10,47 | 12,37 |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabella portata **ACCIAIO - STEEL** load tables

Tabella portata **ALLUMINIO - ALUMINUM** load tables

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
| 0,5 | P = Kg./m <sup>2</sup> | 685  | 380  | 240  | 165  | 120  | 90   | 60   |      |      |      |      |      |      |      | 520  | 290  | 155  | 85   | 50   |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,6 |                        | 965  | 540  | 340  | 235  | 170  | 110  | 75   | 50   |      |      |      |      |      |      |      | 645  | 360  | 180  | 100  | 60   |      |      |      |      |      |      |      |      |  |  |  |
| 0,7 |                        | 1000 | 855  | 545  | 315  | 195  | 125  | 85   | 60   |      |      |      |      |      |      |      |      | 840  | 415  | 205  | 115  | 70   |      |      |      |      |      |      |      |  |  |  |
| 0,8 |                        | -    | 1000 | 625  | 360  | 220  | 145  | 100  | 70   | 50   |      |      |      |      |      |      |      | 1000 | 510  | 255  | 140  | 85   | 50   |      |      |      |      |      |      |  |  |  |
| 1,0 |                        | -    | -    | 765  | 435  | 270  | 175  | 120  | 85   | 60   |      |      |      |      |      |      |      | -    | 590  | 295  | 165  | 95   | 60   |      |      |      |      |      |      |  |  |  |
| 1,2 |                        | -    | -    | 895  | 510  | 315  | 205  | 140  | 100  | 70   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
| 0,5 | P = Kg./m <sup>2</sup> | 490  | 325  | 235  | 175  | 140  | 110  | 90   | 75   | 65   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,6 |                        | 660  | 440  | 315  | 240  | 185  | 150  | 125  | 105  | 85   | 75   | 55   |      |      |      |      | 370  | 245  | 180  | 135  | 105  | 85   | 60   |      |      |      |      |      |      |  |  |  |
| 0,7 |                        | 815  | 540  | 390  | 295  | 230  | 185  | 155  | 130  | 110  | 85   | 65   | 50   |      |      |      |      | 450  | 300  | 215  | 165  | 130  | 100  | 70   |      |      |      |      |      |  |  |  |
| 0,8 |                        | 995  | 660  | 475  | 360  | 280  | 225  | 185  | 155  | 135  | 100  | 75   | 60   |      |      |      |      | 550  | 365  | 260  | 200  | 155  | 115  | 80   | 55   |      |      |      |      |  |  |  |
| 1,0 |                        | 1000 | 885  | 635  | 480  | 380  | 305  | 250  | 210  | 160  | 120  | 95   | 70   | 55   |      |      |      | 750  | 495  | 355  | 270  | 210  | 145  | 95   | 65   |      |      |      |      |  |  |  |
| 1,2 |                        | -    | 1000 | 805  | 610  | 475  | 385  | 315  | 255  | 190  | 140  | 110  | 85   | 65   | 50   |      |      | 950  | 625  | 450  | 340  | 255  | 165  | 110  | 75   | 55   |      |      |      |  |  |  |

Spessore nominale  
Nominal thickness

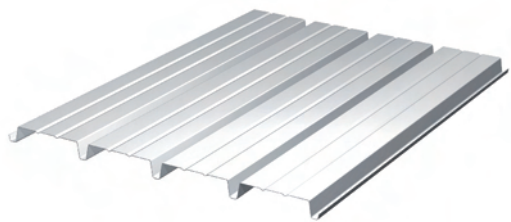
Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
| 0,5 | P = Kg./m <sup>2</sup> | 590  | 390  | 285  | 215  | 170  | 135  | 110  | 85   | 65   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,6 |                        | 790  | 530  | 380  | 290  | 230  | 185  | 150  | 105  | 75   | 60   |      |      |      |      |      | 440  | 295  | 215  | 165  | 105  | 70   |      |      |      |      |      |      |      |  |  |  |
| 0,7 |                        | 980  | 660  | 470  | 360  | 285  | 230  | 170  | 120  | 90   | 65   | 50   |      |      |      |      |      | 540  | 365  | 265  | 200  | 120  | 80   | 50   |      |      |      |      |      |  |  |  |
| 0,8 |                        | 1000 | 800  | 575  | 440  | 345  | 285  | 195  | 140  | 105  | 75   | 60   |      |      |      |      |      | 660  | 440  | 320  | 225  | 140  | 90   | 60   |      |      |      |      |      |  |  |  |
| 1,0 |                        | -    | 1000 | 775  | 590  | 465  | 345  | 240  | 170  | 125  | 95   | 70   | 55   |      |      |      |      | 900  | 600  | 435  | 280  | 170  | 110  | 75   | 50   |      |      |      |      |  |  |  |
| 1,2 |                        | -    | -    | 980  | 745  | 585  | 405  | 280  | 200  | 145  | 110  | 80   | 60   | 50   |      |      |      | 1000 | 760  | 545  | 325  | 200  | 125  | 85   | 55   |      |      |      |      |  |  |  |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 38-R

## 732 - 915

Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 5,4   | 6,4   | 7,5   | 8,6   | 10,7  | 12,9  | 2,2   | 2,6   | 3,0   | 3,7   | 4,4   |
| J <sub>v</sub> (cm <sup>4</sup> /m)                     | 9,75  | 11,79 | 13,57 | 15,47 | 18,88 | 22,04 | 12,18 | 13,94 | 15,84 | 19,42 | 22,55 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 3,30  | 4,00  | 4,60  | 5,25  | 6,41  | 7,49  | 4,13  | 4,73  | 5,37  | 6,60  | 7,66  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 11,50 | 13,89 | 15,96 | 18,17 | 22,10 | 25,71 | 14,34 | 16,39 | 18,59 | 22,72 | 26,29 |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 4,97  | 6,04  | 6,98  | 8,00  | 9,85  | 11,62 | 6,24  | 7,17  | 8,19  | 10,14 | 11,89 |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tablelle portata **ACCIAIO - STEEL** load tables

Tablelle portate **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|
|  |  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |   |
| mm                                     | ℓ = m  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |   |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 930  | 525  | 335  | 220  | 135  | 90   | 60   |      |      |      |      |      |      |      | 735  | 320  | 160  | 90   | 50   |      |      |      |      |      |      |      |      |      |   |
| 0,6                                    |  | 1000 | 675  | 430  | 270  | 165  | 110  | 75   | 50   |      |      |      |      |      |      | 880  | 365  | 180  | 100  | 60   |      |      |      |      |      |      |      |      |      |   |
| 0,7                                    |  | -    | 805  | 515  | 315  | 195  | 125  | 85   | 60   |      |      |      |      |      |      | 1000 | 415  | 205  | 115  | 70   |      |      |      |      |      |      |      |      |      |   |
| 0,8                                    |  | -    | 945  | 605  | 360  | 220  | 145  | 100  | 70   | 50   |      |      |      |      |      | -    | 510  | 255  | 140  | 85   | 50   |      |      |      |      |      |      |      |      |   |
| 1,0                                    |  | -    | 1000 | 765  | 435  | 270  | 175  | 120  | 85   | 60   |      |      |      |      |      | -    | 590  | 295  | 165  | 95   | 60   |      |      |      |      |      |      |      |      |   |
| 1,2                                    |  | -    | -    | 895  | 510  | 315  | 205  | 140  | 100  | 70   | 50   |      |      |      |      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | - |

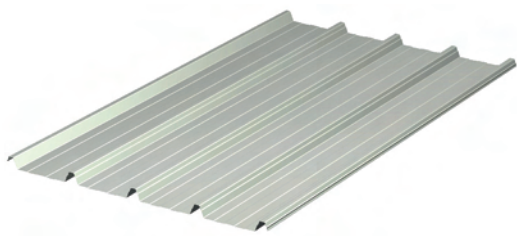
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |
| mm                                     | ℓ = m  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 485  | 310  | 210  | 150  | 110  | 85   | 70   | 55   |      |      |      |      |      | 355  | 225  | 150  | 110  | 80   | 60   | 50   |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 625  | 495  | 340  | 235  | 170  | 130  | 100  | 80   | 65   | 55   |      |      |      | 435  | 305  | 190  | 135  | 100  | 80   | 60   |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 755  | 620  | 435  | 320  | 245  | 190  | 155  | 125  | 105  | 85   | 65   | 50   |      |      | 520  | 410  | 285  | 205  | 145  | 110  | 80   | 55   |      |      |      |      |      |      |
| 0,8                                    |  | 900  | 745  | 515  | 380  | 290  | 225  | 180  | 150  | 125  | 100  | 75   | 60   |      |      | 690  | 570  | 395  | 290  | 220  | 145  | 95   | 65   |      |      |      |      |      |      |
| 1,0                                    |  | 1000 | 985  | 675  | 490  | 375  | 290  | 235  | 190  | 155  | 120  | 95   | 70   | 55   |      | 1000 | 715  | 490  | 360  | 255  | 165  | 110  | 75   | 55   |      |      |      |      |      |
| 1,2                                    |  | -    | 1000 | 835  | 605  | 455  | 355  | 275  | 220  | 180  | 140  | 110  | 85   | 65   | 50   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |
| mm                                     | ℓ = m  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 580  | 375  | 255  | 185  | 140  | 110  | 85   | 70   | 55   |      |      |      |      | 425  | 270  | 185  | 135  | 100  | 70   |      |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 750  | 590  | 415  | 295  | 215  | 165  | 125  | 100  | 75   | 55   |      |      |      | 520  | 365  | 240  | 170  | 120  | 80   | 50   |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 910  | 745  | 525  | 385  | 295  | 235  | 170  | 120  | 90   | 65   | 50   |      |      | 625  | 490  | 345  | 225  | 140  | 90   | 60   |      |      |      |      |      |      |      |      |
| 0,8                                    |  | 1000 | 900  | 625  | 460  | 355  | 280  | 195  | 140  | 100  | 75   | 55   |      |      | 835  | 685  | 480  | 280  | 170  | 110  | 75   | 50   |      |      |      |      |      |      |      |
| 1,0                                    |  | -    | 1000 | 825  | 600  | 460  | 345  | 240  | 170  | 125  | 95   | 70   | 55   |      | 1000 | 860  | 570  | 325  | 200  | 125  | 85   | 55   |      |      |      |      |      |      |      |
| 1,2                                    |  | -    | -    | 1000 | 740  | 560  | 405  | 280  | 200  | 145  | 110  | 80   | 60   | 50   |      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITP H40/40PdA-D 1000



Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)            | 0,50  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Peso nominale*<br>Weight nominal (Kg./m <sup>2</sup> ) | 4,9   | 5,9   | 6,9   | 7,9   | 9,8   | 11,8  | 2,0   | 2,4   | 2,7   | 3,4   | 4,1   |
| J <sub>y</sub> (cm <sup>4</sup> /m)                    | 10,00 | 12,07 | 13,84 | 15,74 | 19,09 | 22,13 | 12,47 | 14,23 | 16,12 | 19,64 | 22,65 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                | 12,36 | 14,88 | 17,04 | 19,34 | 23,37 | 26,99 | 15,37 | 17,51 | 19,80 | 24,03 | 27,61 |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                | 3,14  | 3,78  | 4,34  | 4,94  | 6,00  | 6,96  | 3,91  | 4,46  | 5,06  | 6,17  | 7,12  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                    | 4,76  | 5,80  | 6,73  | 7,74  | 9,60  | 11,40 | 6,00  | 6,92  | 7,93  | 9,89  | 11,69 |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabelle portata **ACCIAIO - STEEL** load tables

Tabelle portate **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |       |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
|  | mm   | l = m | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 665   | 365  | 230  | 155  | 110  | 80   | 50   |      |      |      |      |      |      |      |      | 495  | 280  | 145  | 75   |      |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,6                                    |  | 1000  | 670  | 425  | 270  | 160  | 100  | 65   |      |      |      |      |      |      |      |      |      | 610  | 335  | 170  | 90   | 50   |      |      |      |      |      |      |      |      |  |  |  |
| 0,7                                    |  | -     | 835  | 530  | 310  | 190  | 120  | 75   | 50   |      |      |      |      |      |      |      |      | 835  | 410  | 200  | 105  | 60   |      |      |      |      |      |      |      |      |  |  |  |
| 0,8                                    |  | -     | 965  | 610  | 355  | 215  | 135  | 90   | 60   |      |      |      |      |      |      |      |      | 1000 | 505  | 245  | 135  | 75   |      |      |      |      |      |      |      |      |  |  |  |
| 1,0                                    |  | -     | 1000 | 760  | 435  | 265  | 170  | 110  | 75   | 50   |      |      |      |      |      |      |      | -    | 585  | 285  | 155  | 90   | 50   |      |      |      |      |      |      |      |  |  |  |
| 1,2                                    |  | -     | -    | 890  | 505  | 305  | 195  | 130  | 90   | 60   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |       |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|
|  | mm   | l = m | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 335   | 225  | 160  | 120  | 95   | 75   | 60   |      |      |      |      |      |      |      |      | 240  | 160  | 115  | 85   | 65   | 50   |      |      |      |      |      |      |      |      |  |  |  |  |
| 0,6                                    |  | 445   | 295  | 215  | 160  | 125  | 100  | 80   | 65   | 55   |      |      |      |      |      |      |      | 300  | 195  | 140  | 105  | 80   | 60   | 50   |      |      |      |      |      |      |  |  |  |  |
| 0,7                                    |  | 550   | 365  | 265  | 200  | 155  | 125  | 100  | 80   | 70   | 55   | 50   |      |      |      |      |      | 365  | 240  | 170  | 130  | 100  | 75   | 60   |      |      |      |      |      |      |  |  |  |  |
| 0,8                                    |  | 670   | 445  | 320  | 240  | 190  | 150  | 125  | 100  | 85   | 70   | 60   | 50   |      |      |      |      | 505  | 335  | 235  | 175  | 135  | 110  | 85   | 60   |      |      |      |      |      |  |  |  |  |
| 1,0                                    |  | 905   | 605  | 435  | 325  | 255  | 205  | 165  | 140  | 115  | 95   | 80   | 65   |      |      |      |      | 640  | 420  | 300  | 225  | 175  | 135  | 105  | 70   |      |      |      |      |      |  |  |  |  |
| 1,2                                    |  | 1000  | 765  | 550  | 415  | 325  | 260  | 210  | 170  | 140  | 120  | 100  | 75   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |

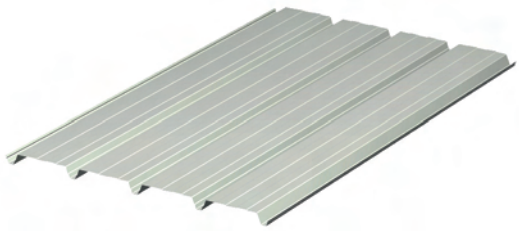
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |       |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|
|  | mm   | l = m | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |  |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 405   | 270  | 195  | 150  | 115  | 90   | 75   | 60   | 50   |      |      |      |      |      |      | 290  | 195  | 140  | 105  | 80   | 55   |      |      |      |      |      |      |      |      |  |  |  |  |
| 0,6                                    |  | 535   | 360  | 260  | 195  | 155  | 125  | 100  | 85   | 70   | 50   |      |      |      |      |      |      | 360  | 240  | 170  | 130  | 100  | 70   |      |      |      |      |      |      |      |  |  |  |  |
| 0,7                                    |  | 665   | 445  | 320  | 245  | 190  | 155  | 125  | 105  | 80   | 60   |      |      |      |      |      |      | 440  | 295  | 210  | 160  | 125  | 80   | 50   |      |      |      |      |      |      |  |  |  |  |
| 0,8                                    |  | 810   | 540  | 390  | 295  | 235  | 190  | 155  | 130  | 95   | 65   | 50   |      |      |      |      |      | 610  | 405  | 290  | 220  | 165  | 100  | 65   |      |      |      |      |      |      |  |  |  |  |
| 1,0                                    |  | 1000  | 735  | 530  | 405  | 315  | 255  | 210  | 165  | 115  | 85   | 60   |      |      |      |      |      | 775  | 515  | 370  | 280  | 190  | 120  | 75   | 50   |      |      |      |      |      |  |  |  |  |
| 1,2                                    |  | -     | 935  | 675  | 510  | 400  | 325  | 265  | 190  | 135  | 100  | 75   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)





# ITP H40/40PdA-R

## 1000



Sezione lorda **ACCIAIO - STEEL** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  |
|---|-------|-------|-------|-------|-------|-------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 4,9   | 5,9   | 6,9   | 7,9   | 9,8   | 11,8  |
| J <sub>v</sub><br>(cm <sup>4</sup> /m)                  | 9,24  | 11,17 | 12,84 | 14,63 | 17,81 | 20,74 |
| W <sub>e,inf</sub><br>(cm <sup>3</sup> /m)              | 2,94  | 3,56  | 4,09  | 4,67  | 5,69  | 6,63  |
| W <sub>e,sup</sub><br>(cm <sup>3</sup> /m)              | 10,74 | 12,95 | 14,85 | 16,88 | 20,47 | 23,73 |
| W <sub>p</sub><br>(cm <sup>3</sup> /m)                  | 4,41  | 5,37  | 6,22  | 7,14  | 8,83  | 10,45 |

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

|  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  |
|--|-------|-------|-------|-------|-------|
|  | 2,0   | 2,4   | 2,7   | 3,4   | 4,1   |
|  | 11,54 | 13,20 | 14,98 | 18,33 | 21,23 |
|  | 3,68  | 4,21  | 4,78  | 5,86  | 6,79  |
|  | 13,37 | 15,26 | 17,28 | 21,05 | 24,28 |
|  | 5,55  | 6,39  | 7,31  | 9,09  | 10,71 |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tablelle portata **ACCIAIO - STEEL** load tables

Tablelle portate **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| mm                                     | l = m  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 770  | 430  | 275  | 185  | 120  | 75   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6                                    |  | 965  | 545  | 345  | 235  | 150  | 95   | 60   |      |      |      |      |      |      |      | 595  | 290  | 140  | 75   |      |      |      |      |      |      |      |      |      |      |  |
| 0,7                                    |  | 1000 | 645  | 410  | 280  | 175  | 110  | 70   |      |      |      |      |      |      |      | 700  | 335  | 160  | 85   |      |      |      |      |      |      |      |      |      |      |  |
| 0,8                                    |  | -    | 775  | 480  | 330  | 200  | 125  | 80   | 55   |      |      |      |      |      |      | 820  | 380  | 185  | 100  | 55   |      |      |      |      |      |      |      |      |      |  |
| 1,0                                    |  | -    | 970  | 620  | 400  | 245  | 155  | 105  | 70   |      |      |      |      |      |      | 1000 | 470  | 230  | 125  | 70   |      |      |      |      |      |      |      |      |      |  |
| 1,2                                    |  | -    | 1000 | 755  | 470  | 285  | 185  | 120  | 80   | 55   |      |      |      |      |      | -    | 545  | 265  | 145  | 80   |      |      |      |      |      |      |      |      |      |  |

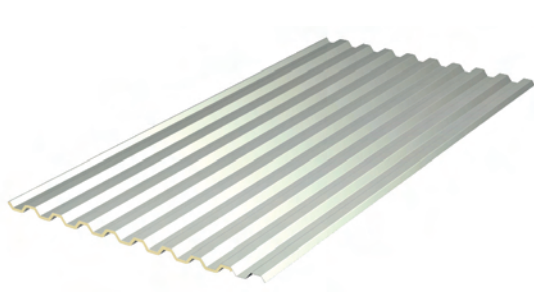
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| mm                                     | l = m  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 405  | 260  | 175  | 125  | 90   | 70   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 560  | 360  | 240  | 170  | 125  | 95   | 75   | 55   |      |      |      |      |      |      | 310  | 195  | 130  | 90   | 65   | 50   |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 675  | 515  | 350  | 250  | 190  | 145  | 115  | 90   | 70   | 55   |      |      |      |      | 380  | 245  | 160  | 115  | 85   | 60   |      |      |      |      |      |      |      |      |
| 0,8                                    |  | 805  | 680  | 465  | 340  | 255  | 200  | 155  | 125  | 100  | 80   | 60   |      |      |      | 465  | 295  | 195  | 140  | 100  | 75   | 60   |      |      |      |      |      |      |      |
| 1,0                                    |  | 1000 | 905  | 615  | 445  | 335  | 260  | 200  | 160  | 130  | 105  | 75   | 55   |      |      | 620  | 510  | 350  | 250  | 190  | 125  | 80   | 50   |      |      |      |      |      |      |
| 1,2                                    |  | -    | 1000 | 760  | 545  | 410  | 310  | 240  | 190  | 155  | 125  | 90   | 70   | 50   |      | 760  | 655  | 445  | 320  | 230  | 145  | 95   | 60   |      |      |      |      |      |      |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| mm                                     | l = m  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 490  | 315  | 215  | 155  | 115  | 90   | 70   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 675  | 435  | 295  | 210  | 160  | 120  | 95   | 75   | 60   |      |      |      |      |      | 370  | 240  | 160  | 115  | 85   | 55   |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 820  | 625  | 430  | 310  | 235  | 180  | 145  | 105  | 75   | 55   |      |      |      |      | 460  | 295  | 200  | 145  | 105  | 65   |      |      |      |      |      |      |      |      |
| 0,8                                    |  | 980  | 825  | 570  | 415  | 315  | 245  | 175  | 120  | 85   | 60   |      |      |      |      | 560  | 360  | 245  | 175  | 120  | 75   |      |      |      |      |      |      |      |      |
| 1,0                                    |  | 1000 | 1000 | 750  | 545  | 410  | 315  | 215  | 150  | 105  | 75   | 55   |      |      |      | 750  | 615  | 425  | 255  | 150  | 95   | 60   |      |      |      |      |      |      |      |
| 1,2                                    |  | -    | -    | 930  | 670  | 505  | 370  | 250  | 175  | 125  | 90   | 65   | 50   |      |      | 925  | 795  | 525  | 295  | 175  | 110  | 70   |      |      |      |      |      |      |      |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITP Mono 28

## 1012



Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)            | 0,50 | 0,60 | 0,70 | 0,80  | 1,00  | 1,20  | 0,60 | 0,70  | 0,80  | 1,00  | 1,20  |
|--|------|------|------|-------|-------|-------|------|-------|-------|-------|-------|
| Peso nominale*<br>Weight nominal (Kg./m <sup>2</sup> ) | 5,2  | 6,2  | 7,2  | 8,1   | 10,0  | 12,0  | 2,4  | 2,8   | 3,1   | 3,8   | 4,4   |
| J <sub>y</sub> (cm <sup>4</sup> /m)                    | 7,05 | 8,54 | 9,85 | 11,25 | 13,78 | 16,15 | 8,82 | 10,12 | 11,51 | 14,17 | 16,52 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                | 5,04 | 6,10 | 7,03 | 8,03  | 9,84  | 11,53 | 6,30 | 7,23  | 8,22  | 10,12 | 11,80 |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                | 5,04 | 6,10 | 7,03 | 8,03  | 9,84  | 11,53 | 6,30 | 7,23  | 8,22  | 10,12 | 11,80 |
| W <sub>p</sub> (cm <sup>3</sup> /m)                    | 5,82 | 7,10 | 8,23 | 9,47  | 11,76 | 13,97 | 7,34 | 8,47  | 9,70  | 12,11 | 14,30 |

\* peso calcolato rispetto alla larghezza totale - weight calculated relevant to total width

Tablelle portata **ACCIAIO - STEEL** load tables

Tablelle portate **ALLUMINIO - ALUMINUM** load tables

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| 0,5 | P = Kg./m <sup>2</sup> | 825  | 460  | 235  | 130  | 75   |      |      |      |      |      |      |      |      |      | 465  | 185  | 85   |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6 |                        | 1000 | 600  | 295  | 165  | 95   | 60   |      |      |      |      |      |      |      |      |      | 545  | 220  | 100  | 50   |      |      |      |      |      |      |      |      |      |  |
| 0,7 |                        | -    | 715  | 355  | 195  | 115  | 70   |      |      |      |      |      |      |      |      |      | 640  | 255  | 120  | 60   |      |      |      |      |      |      |      |      |      |  |
| 0,8 |                        | -    | 840  | 420  | 235  | 140  | 85   | 55   |      |      |      |      |      |      |      |      | 825  | 335  | 160  | 80   |      |      |      |      |      |      |      |      |      |  |
| 1,0 |                        | -    | 1000 | 545  | 305  | 185  | 115  | 75   |      |      |      |      |      |      |      |      | 1000 | 405  | 195  | 100  | 55   |      |      |      |      |      |      |      |      |  |
| 1,2 |                        | -    | -    | 640  | 360  | 215  | 135  | 90   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0,5 | P = Kg./m <sup>2</sup> | 570  | 355  | 245  | 175  | 130  | 100  | 75   | 60   |      |      |      |      |      |      | 420  | 260  | 175  | 125  | 80   |      |      |      |      |      |      |      |      |      |
| 0,6 |                        | 765  | 480  | 330  | 235  | 180  | 140  | 105  | 80   | 55   |      |      |      |      |      |      | 520  | 325  | 220  | 160  | 95   | 55   |      |      |      |      |      |      |      |
| 0,7 |                        | 955  | 595  | 410  | 295  | 220  | 175  | 135  | 95   | 65   |      |      |      |      |      |      | 640  | 400  | 275  | 185  | 110  | 65   |      |      |      |      |      |      |      |
| 0,8 |                        | 1000 | 735  | 505  | 365  | 270  | 215  | 165  | 115  | 80   | 55   |      |      |      |      |      | 890  | 560  | 380  | 240  | 140  | 85   | 55   |      |      |      |      |      |      |
| 1,0 |                        | -    | 1000 | 690  | 495  | 365  | 290  | 210  | 145  | 105  | 75   | 55   |      |      |      |      | 1000 | 715  | 490  | 285  | 170  | 105  | 65   |      |      |      |      |      |      |
| 1,2 |                        | -    | -    | 825  | 585  | 505  | 365  | 250  | 175  | 125  | 90   | 65   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

Spessore nominale  
Nominal thickness

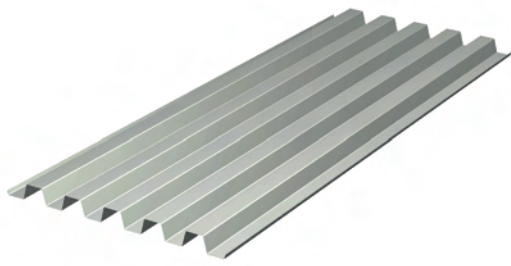
Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0,5 | P = Kg./m <sup>2</sup> | 690  | 435  | 300  | 215  | 160  | 100  | 65   |      |      |      |      |      |      |      | 510  | 320  | 185  | 100  | 55   |      |      |      |      |      |      |      |      |      |
| 0,6 |                        | 930  | 585  | 405  | 295  | 205  | 130  | 85   | 55   |      |      |      |      |      |      |      | 630  | 400  | 215  | 115  | 65   |      |      |      |      |      |      |      |      |
| 0,7 |                        | 1000 | 730  | 505  | 365  | 245  | 155  | 105  | 70   |      |      |      |      |      |      |      | 775  | 490  | 255  | 140  | 80   |      |      |      |      |      |      |      |      |
| 0,8 |                        | -    | 895  | 620  | 450  | 285  | 185  | 125  | 85   | 60   |      |      |      |      |      |      | 1000 | 660  | 325  | 180  | 105  | 60   |      |      |      |      |      |      |      |
| 1,0 |                        | -    | 1000 | 845  | 600  | 370  | 240  | 160  | 110  | 75   | 55   |      |      |      |      |      | -    | 800  | 395  | 220  | 130  | 75   |      |      |      |      |      |      |      |
| 1,2 |                        | -    | -    | 1000 | 705  | 435  | 280  | 190  | 130  | 95   | 65   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 55

600 - 750 - 900

Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  | 0,60  | 0,70  | 0,80  | 1,00  | 1,20  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 6,5   | 7,9   | 9,2   | 10,5  | 13,1  | 15,7  | 2,7   | 3,2   | 3,6   | 4,5   | 5,4   |
| J <sub>v</sub> (cm <sup>4</sup> /m)                     | 35,33 | 43,13 | 50,05 | 57,61 | 71,62 | 85,17 | 44,57 | 51,47 | 59,02 | 73,75 | 87,24 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 12,85 | 15,68 | 18,20 | 20,95 | 26,04 | 30,97 | 16,21 | 18,72 | 21,46 | 26,82 | 31,73 |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 12,85 | 15,68 | 18,20 | 20,95 | 26,04 | 30,97 | 16,21 | 18,72 | 21,46 | 26,82 | 31,73 |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 14,58 | 17,86 | 20,79 | 24,01 | 30,05 | 35,97 | 18,47 | 21,39 | 24,61 | 30,96 | 36,86 |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tablelle portate **ACCIAIO - STEEL** load tables

Tablelle portate **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
|  |  | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
| mm                                     | ℓ = m  | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |  |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 850  | 370  | 200  | 155  | 120  | 90   | 65   |      |      |      |      |      |      |      |      | 640  | 265  | 100  | 65   |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,6                                    |  | 1000 | 540  | 295  | 230  | 165  | 115  | 85   | 60   |      |      |      |      |      |      |      |      | 835  | 315  | 120  | 75   | 50   |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,7                                    |  | -    | 685  | 375  | 275  | 195  | 140  | 105  | 75   | 55   |      |      |      |      |      |      |      | 1000 | 370  | 140  | 90   | 60   |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,8                                    |  | -    | 845  | 465  | 330  | 230  | 170  | 125  | 90   | 70   | 50   |      |      |      |      |      |      | -    | 475  | 185  | 120  | 80   | 55   |      |      |      |      |      |      |      |      |  |  |  |
| 1,0                                    |  | -    | 1000 | 620  | 425  | 305  | 220  | 165  | 120  | 90   | 70   | 50   |      |      |      |      |      | -    | 585  | 230  | 150  | 100  | 70   |      |      |      |      |      |      |      |      |  |  |  |
| 1,2                                    |  | -    | -    | 770  | 530  | 380  | 275  | 205  | 155  | 120  | 90   | 70   | 50   |      |      |      |      | -    | -    | -    | -    | -    | -    |      |      |      |      |      |      |      |      |  |  |  |

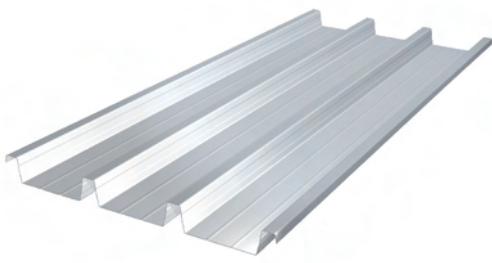
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
|  |  | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |  |  |  |
| mm                                     | ℓ = m  | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |  |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 505  | 270  | 165  | 125  | 105  | 85   | 70   | 60   | 50   |      |      |      |      |      |      | 360  | 185  | 110  | 85   | 70   | 55   |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,6                                    |  | 690  | 370  | 225  | 185  | 150  | 125  | 105  | 90   | 80   | 65   | 55   | 50   |      |      |      | 460  | 245  | 145  | 115  | 95   | 80   | 65   | 55   |      |      |      |      |      |      |      |  |  |  |
| 0,7                                    |  | 865  | 465  | 285  | 235  | 195  | 165  | 140  | 120  | 100  | 90   | 75   | 65   | 55   | 50   |      | 1000 | 370  | 140  | 90   | 60   |      |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,8                                    |  | 1000 | 575  | 360  | 295  | 245  | 205  | 175  | 150  | 130  | 115  | 100  | 85   | 75   | 65   | 55   | 570  | 305  | 185  | 150  | 125  | 105  | 85   | 75   | 55   |      |      |      |      |      |      |  |  |  |
| 1,0                                    |  | -    | 810  | 505  | 415  | 345  | 290  | 250  | 220  | 190  | 165  | 140  | 125  | 105  | 95   | 75   | 815  | 435  | 270  | 220  | 180  | 150  | 130  | 100  | 75   | 55   |      |      |      |      |      |  |  |  |
| 1,2                                    |  | -    | 1000 | 665  | 545  | 455  | 385  | 340  | 290  | 250  | 215  | 190  | 165  | 145  | 115  | 95   | 1000 | 570  | 355  | 290  | 240  | 200  | 165  | 120  | 90   | 70   | 50   |      |      |      |      |  |  |  |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |
| mm                                     | ℓ = m  | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 1,00 | 1,50 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 605  | 320  | 195  | 160  | 130  | 105  | 90   | 75   | 65   | 55   |      |      |      |      |      | 435  | 225  | 135  | 110  | 90   | 70   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 825  | 445  | 280  | 230  | 190  | 160  | 135  | 115  | 100  | 85   | 65   | 50   |      |      |      | 550  | 295  | 180  | 145  | 120  | 85   | 60   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 1000 | 560  | 350  | 290  | 240  | 205  | 175  | 150  | 130  | 105  | 80   | 65   | 50   |      |      | 680  | 370  | 230  | 190  | 140  | 100  | 70   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,8                                    |  | -    | 700  | 440  | 360  | 300  | 255  | 215  | 190  | 155  | 125  | 95   | 75   | 60   |      |      | 975  | 530  | 330  | 265  | 185  | 130  | 95   | 70   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1,0                                    |  | -    | 985  | 620  | 510  | 425  | 360  | 310  | 265  | 205  | 160  | 130  | 100  | 80   | 65   | 50   | 1000 | 690  | 435  | 320  | 225  | 160  | 115  | 85   | 60   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1,2                                    |  | -    | 1000 | 815  | 670  | 560  | 475  | 420  | 325  | 255  | 200  | 160  | 130  | 105  | 85   | 65   | 1000 | 815  | 670  | 560  | 475  | 420  | 325  | 255  | 200  | 160  | 130  | 105  | 85   | 65   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 75 - D

## 570 (passo greche 190 mm)



Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)            | 0,50  | 0,60  | 0,70  | 0,80  | 1,00   | 1,20   | 0,60  | 0,70  | 0,80   | 1,00   | 1,20   |
|--|-------|-------|-------|-------|--------|--------|-------|-------|--------|--------|--------|
| Peso nominale*<br>Weight nominal (Kg./m <sup>2</sup> ) | 6,9   | 8,3   | 9,6   | 11,0  | 13,8   | 16,5   | 2,8   | 3,3   | 3,8    | 4,7    | 5,7    |
| J <sub>y</sub> (cm <sup>4</sup> /m)                    | 61,48 | 74,80 | 86,51 | 99,24 | 122,51 | 144,63 | 77,32 | 88,98 | 101,70 | 126,19 | 148,20 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                | 22,38 | 27,23 | 31,48 | 36,11 | 44,58  | 52,62  | 28,14 | 32,38 | 37,01  | 45,92  | 53,92  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                | 12,93 | 15,74 | 18,20 | 20,88 | 25,78  | 30,44  | 16,27 | 18,72 | 21,40  | 26,56  | 31,19  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                    | 18,92 | 23,13 | 26,89 | 31,00 | 38,67  | 46,14  | 23,92 | 27,66 | 31,78  | 39,85  | 47,30  |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabelle portata **ACCIAIO - STEEL** load tables

Tabelle portate **ALLUMINIO - ALUMINUM** load tables

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| 0,5 | P = Kg./m <sup>2</sup> | 230  | 145  | 100  | 85   | 70   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6 |                        | 330  | 210  | 140  | 120  | 100  | 85   | 70   | 55   |      |      |      |      |      |      |      | 170  | 100  | 55   |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,7 |                        | 430  | 275  | 185  | 155  | 130  | 105  | 85   | 70   | 55   |      |      |      |      |      |      | 225  | 115  | 65   |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,8 |                        | 555  | 350  | 240  | 200  | 160  | 130  | 105  | 85   | 70   | 55   |      |      |      |      |      | 280  | 140  | 75   | 55   |      |      |      |      |      |      |      |      |      |      |      |  |
| 1,0 |                        | 780  | 495  | 340  | 265  | 210  | 165  | 135  | 110  | 90   | 75   | 60   | 50   |      |      |      | 370  | 185  | 100  | 75   | 55   |      |      |      |      |      |      |      |      |      |      |  |
| 1,2 |                        | 1000 | 725  | 415  | 320  | 255  | 200  | 165  | 135  | 110  | 90   | 75   | 60   | 50   |      |      | 460  | 225  | 125  | 90   | 70   | 55   |      |      |      |      |      |      |      |      |      |  |

Spessore nominale  
Nominal thickness

Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0,5 | P = Kg./m <sup>2</sup> | 195  | 135  | 100  | 90   | 80   | 70   | 60   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6 |                        | 260  | 185  | 135  | 120  | 105  | 90   | 80   | 75   | 65   | 60   | 55   | 50   |      |      |      | 135  | 95   | 70   | 60   | 55   | 50   |      |      |      |      |      |      |      |      |      |
| 0,7 |                        | 320  | 225  | 165  | 145  | 125  | 110  | 100  | 90   | 80   | 70   | 65   | 60   | 55   | 50   |      | 175  | 120  | 90   | 85   | 75   | 60   | 55   |      |      |      |      |      |      |      |      |
| 0,8 |                        | 385  | 270  | 200  | 170  | 150  | 135  | 120  | 105  | 95   | 85   | 75   | 70   | 65   | 60   | 55   | 210  | 150  | 115  | 100  | 90   | 75   | 65   | 60   | 55   |      |      |      |      |      |      |
| 1,0 |                        | 520  | 360  | 260  | 225  | 200  | 175  | 155  | 140  | 125  | 115  | 105  | 95   | 85   | 80   | 70   | 290  | 205  | 150  | 130  | 110  | 100  | 85   | 75   | 70   | 55   |      |      |      |      |      |
| 1,2 |                        | 650  | 450  | 330  | 290  | 255  | 225  | 200  | 180  | 160  | 145  | 130  | 120  | 105  | 95   | 90   | 370  | 255  | 185  | 160  | 140  | 125  | 110  | 95   | 85   | 70   | 55   |      |      |      |      |

Spessore nominale  
Nominal thickness

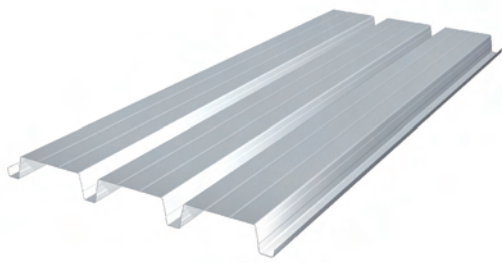
Larghezza efficace appoggio: 50 mm  
Working width support: 50 mm

| mm  | l = m                  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
|-----|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0,5 | P = Kg./m <sup>2</sup> | 235  | 165  | 125  | 110  | 95   | 85   | 75   | 70   | 60   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6 |                        | 310  | 220  | 165  | 145  | 125  | 115  | 100  | 90   | 80   | 75   | 65   | 60   | 50   |      |      | 165  | 115  | 85   | 75   | 65   | 55   |      |      |      |      |      |      |      |      |      |
| 0,7 |                        | 385  | 270  | 200  | 175  | 155  | 135  | 120  | 110  | 100  | 90   | 80   | 70   | 60   | 50   |      | 205  | 150  | 110  | 95   | 80   | 65   | 50   |      |      |      |      |      |      |      |      |
| 0,8 |                        | 465  | 325  | 240  | 210  | 185  | 165  | 145  | 130  | 120  | 105  | 95   | 85   | 75   | 60   | 55   | 255  | 180  | 135  | 115  | 95   | 75   | 60   | 50   |      |      |      |      |      |      |      |
| 1,0 |                        | 625  | 435  | 320  | 280  | 245  | 220  | 195  | 175  | 155  | 145  | 130  | 110  | 95   | 80   | 70   | 350  | 245  | 180  | 160  | 125  | 100  | 80   | 65   | 50   |      |      |      |      |      |      |
| 1,2 |                        | 790  | 550  | 405  | 355  | 310  | 275  | 245  | 220  | 200  | 180  | 155  | 135  | 115  | 95   | 85   | 445  | 310  | 225  | 195  | 150  | 120  | 95   | 75   | 60   | 50   |      |      |      |      |      |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in **BLU**: stati limite ultimo  
BLU values: ultimate limit states

Valori in **ROSSO**: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 75 - R

## 570 (passo greche 190 mm)

Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50  | 0,60  | 0,70  | 0,80  | 1,00   | 1,20   | 0,60  | 0,70  | 0,80   | 1,00   | 1,20   |
|---|-------|-------|-------|-------|--------|--------|-------|-------|--------|--------|--------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 6,9   | 8,3   | 9,6   | 11,0  | 13,8   | 16,5   | 2,8   | 3,3   | 3,8    | 4,7    | 5,7    |
| J <sub>v</sub> (cm <sup>4</sup> /m)                     | 61,48 | 74,80 | 86,51 | 99,24 | 122,51 | 144,63 | 77,32 | 88,98 | 101,70 | 126,19 | 148,20 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 12,93 | 15,74 | 18,20 | 20,88 | 25,78  | 30,44  | 16,27 | 18,72 | 21,40  | 26,56  | 31,19  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 22,38 | 27,23 | 31,48 | 36,11 | 44,58  | 52,62  | 28,14 | 32,38 | 37,01  | 45,92  | 53,92  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 18,92 | 23,13 | 26,89 | 31,00 | 38,67  | 46,14  | 23,92 | 27,66 | 31,78  | 39,85  | 47,30  |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabelle portate **ACCIAIO - STEEL** load tables

Tabelle portate **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| mm                                     | l = m  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 340  | 215  | 150  | 125  | 105  | 85   | 70   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 430  | 275  | 185  | 160  | 130  | 105  | 85   | 70   | 55   |      |      |      |      |      |      | 245  | 120  | 65   | 50   |      |      |      |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 500  | 320  | 215  | 185  | 150  | 120  | 95   | 80   | 65   | 55   |      |      |      |      |      | 285  | 140  | 75   | 60   |      |      |      |      |      |      |      |      |      |      |      |
| 0,8                                    |  | 580  | 370  | 255  | 215  | 175  | 140  | 110  | 90   | 75   | 60   | 50   |      |      |      |      | 325  | 160  | 90   | 65   | 50   |      |      |      |      |      |      |      |      |      |      |
| 1,0                                    |  | 745  | 475  | 325  | 270  | 215  | 170  | 140  | 110  | 90   | 75   | 60   | 50   |      |      |      | 405  | 200  | 110  | 80   | 65   | 50   |      |      |      |      |      |      |      |      |      |
| 1,2                                    |  | 915  | 580  | 400  | 320  | 250  | 200  | 165  | 135  | 110  | 90   | 75   | 60   | 50   |      |      | 475  | 235  | 130  | 95   | 75   | 55   |      |      |      |      |      |      |      |      |      |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| mm                                     | l = m  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 170  | 115  | 80   | 70   | 60   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 240  | 165  | 120  | 100  | 90   | 80   | 70   | 60   | 55   | 50   |      |      |      |      |      | 120  | 80   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 315  | 215  | 155  | 135  | 115  | 100  | 90   | 80   | 70   | 65   | 55   | 50   |      |      |      | 155  | 105  | 75   | 65   | 55   | 50   |      |      |      |      |      |      |      |      |      |
| 0,8                                    |  | 400  | 275  | 200  | 175  | 150  | 135  | 115  | 105  | 95   | 85   | 75   | 70   | 60   | 55   | 50   | 200  | 135  | 95   | 85   | 70   | 65   | 55   | 50   |      |      |      |      |      |      |      |
| 1,0                                    |  | 555  | 385  | 280  | 245  | 215  | 190  | 165  | 150  | 135  | 120  | 110  | 100  | 90   | 80   | 75   | 300  | 205  | 145  | 125  | 110  | 95   | 85   | 75   | 65   | 60   | 50   |      |      |      |      |
| 1,2                                    |  | 745  | 515  | 375  | 325  | 285  | 250  | 225  | 200  | 180  | 160  | 145  | 130  | 120  | 110  | 100  | 390  | 270  | 195  | 170  | 150  | 130  | 115  | 100  | 85   | 70   | 55   |      |      |      |      |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| mm                                     | l = m  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 205  | 140  | 100  | 90   | 75   | 65   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 290  | 200  | 145  | 125  | 110  | 95   | 85   | 75   | 70   | 60   | 55   | 50   |      |      |      | 145  | 100  | 70   | 60   | 55   |      |      |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 380  | 260  | 190  | 165  | 145  | 125  | 115  | 100  | 90   | 80   | 75   | 65   | 60   | 55   | 50   | 190  | 130  | 95   | 80   | 70   | 60   | 55   |      |      |      |      |      |      |      |      |
| 0,8                                    |  | 480  | 335  | 245  | 215  | 185  | 165  | 145  | 130  | 115  | 105  | 95   | 85   | 75   | 65   | 55   | 240  | 165  | 120  | 105  | 90   | 80   | 65   | 55   |      |      |      |      |      |      |      |
| 1,0                                    |  | 670  | 465  | 340  | 300  | 260  | 230  | 205  | 185  | 165  | 150  | 135  | 115  | 95   | 80   | 70   | 360  | 250  | 180  | 155  | 135  | 105  | 85   | 65   | 55   |      |      |      |      |      |      |
| 1,2                                    |  | 895  | 625  | 460  | 400  | 350  | 310  | 275  | 245  | 220  | 185  | 155  | 135  | 115  | 95   | 85   | 465  | 325  | 240  | 200  | 155  | 125  | 100  | 80   | 65   | 50   |      |      |      |      |      |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 75 - D

## 820 (passo greche 273 mm)



Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50  | 0,60  | 0,70  | 0,80  | 1,00   | 1,20   | 0,60  | 0,70  | 0,80  | 1,00   | 1,20   |
|---|-------|-------|-------|-------|--------|--------|-------|-------|-------|--------|--------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 6,0   | 7,2   | 8,4   | 9,6   | 12,0   | 14,4   | 2,5   | 2,9   | 3,3   | 4,1    | 4,9    |
| J <sub>y</sub> (cm <sup>4</sup> /m)                     | 51,00 | 62,16 | 72,00 | 82,73 | 102,48 | 121,41 | 64,25 | 74,06 | 84,78 | 105,56 | 124,41 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 23,40 | 28,50 | 33,01 | 37,92 | 46,94  | 55,57  | 29,46 | 33,95 | 38,85 | 48,34  | 56,94  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 9,59  | 11,69 | 13,54 | 15,56 | 19,28  | 22,84  | 12,08 | 13,92 | 15,94 | 19,86  | 23,41  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 14,13 | 17,30 | 20,12 | 23,23 | 29,05  | 34,76  | 17,89 | 20,71 | 23,82 | 29,94  | 35,65  |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabelle portata **ACCIAIO - STEEL** load tables

Tabelle portate **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | Diagramma di carico: P su l |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
|--|--|-----------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|--|--|
|  |  | mm                          | l = m | 2,00 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 6,00 |  |  |  |  |  |  |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 160                         | 100   | 70   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
| 0,6                                    |  | 235                         | 145   | 100  | 85   | 70   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      | 120  | 75   |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
| 0,7                                    |  | 305                         | 190   | 130  | 110  | 95   | 80   | 70   | 55   |      |      |      |      |      |      |      |      |      |      |      |      | 155  | 95   | 50   |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
| 0,8                                    |  | 390                         | 245   | 170  | 140  | 120  | 105  | 85   | 65   | 55   |      |      |      |      |      |      |      |      |      |      |      | 200  | 110  | 60   |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
| 1,0                                    |  | 575                         | 365   | 250  | 210  | 175  | 140  | 110  | 90   | 75   | 60   | 50   |      |      |      |      |      |      |      |      |      | 300  | 150  | 80   | 60   |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
| 1,2                                    |  | 1000                        | 610   | 345  | 270  | 210  | 170  | 135  | 110  | 90   | 75   | 60   | 50   |      |      |      |      |      |      |      |      | 380  | 190  | 100  | 75   | 60   |      |      |      |      |      |      |  |  |  |  |  |  |  |  |

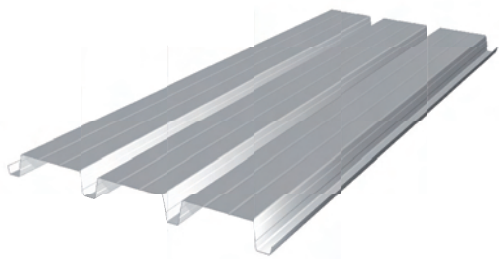
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | Diagramma di carico: P su l, P su l |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
|--|--|-------------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|--|--|
|  |  | mm                                  | l = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |  |  |  |  |  |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 140                                 | 100   | 75   | 65   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
| 0,6                                    |  | 185                                 | 135   | 100  | 85   | 75   | 70   | 60   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      | 100  | 70   | 55   |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
| 0,7                                    |  | 230                                 | 165   | 125  | 110  | 95   | 85   | 75   | 70   | 60   | 55   | 50   |      |      |      |      |      |      |      |      |      | 125  | 90   | 65   | 55   | 50   |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |
| 0,8                                    |  | 285                                 | 200   | 150  | 130  | 115  | 105  | 90   | 85   | 75   | 65   | 60   | 55   | 50   |      |      |      |      |      |      |      | 150  | 110  | 80   | 70   | 60   | 55   | 50   |      |      |      |      |      |  |  |  |  |  |  |  |  |
| 1,0                                    |  | 385                                 | 275   | 205  | 180  | 160  | 140  | 125  | 110  | 100  | 90   | 85   | 75   | 70   | 65   | 60   |      |      |      |      |      | 210  | 150  | 110  | 100  | 85   | 75   | 65   | 60   | 55   |      |      |      |  |  |  |  |  |  |  |  |
| 1,2                                    |  | 495                                 | 350   | 260  | 230  | 200  | 180  | 160  | 145  | 130  | 115  | 105  | 95   | 90   | 80   | 75   |      |      |      |      |      | 270  | 195  | 145  | 125  | 110  | 95   | 85   | 75   | 70   | 55   |      |      |  |  |  |  |  |  |  |  |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | Diagramma di carico: P su l, P su l, P su l |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |
|--|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|--|
|  |  | mm  | l = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,00 | 5,50 | 6,00 |  |  |  |  |  |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 165   | 120   | 90   | 80   | 70   | 60   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |
| 0,6                                    |  | 220   | 160   | 120  | 105  | 95   | 85   | 75   | 70   | 60   | 55   | 50   |      |      |      |      |      |      |      |      |      | 120  | 85   | 65   | 55   | 50   |      |      |      |      |      |      |      |  |  |  |  |  |  |  |
| 0,7                                    |  | 275   | 200   | 150  | 130  | 115  | 105  | 95   | 85   | 75   | 70   | 65   | 55   | 50   |      |      |      |      |      |      |      | 150  | 105  | 80   | 70   | 60   | 50   |      |      |      |      |      |      |  |  |  |  |  |  |  |
| 0,8                                    |  | 340   | 245   | 185  | 160  | 145  | 125  | 115  | 105  | 95   | 85   | 75   | 70   | 60   | 50   |      |      |      |      |      |      | 180  | 130  | 100  | 85   | 75   | 60   |      |      |      |      |      |      |  |  |  |  |  |  |  |
| 1,0                                    |  | 465   | 330   | 250  | 220  | 195  | 170  | 155  | 140  | 125  | 115  | 105  | 90   | 80   | 65   | 55   |      |      |      |      |      | 255  | 185  | 135  | 125  | 105  | 85   | 65   | 55   |      |      |      |      |  |  |  |  |  |  |  |
| 1,2                                    |  | 600   | 425   | 325  | 280  | 245  | 220  | 195  | 180  | 160  | 145  | 130  | 115  | 95   | 85   | 70   |      |      |      |      |      | 335  | 235  | 175  | 155  | 125  | 105  | 85   | 65   | 55   |      |      |      |  |  |  |  |  |  |  |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 75 - R

## 820 (passo greche 273 mm)

Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)            | 0,50  | 0,60  | 0,70  | 0,80  | 1,00   | 1,20   | 0,60  | 0,70  | 0,80  | 1,00   | 1,20   |
|--|-------|-------|-------|-------|--------|--------|-------|-------|-------|--------|--------|
| Peso nominale*<br>Weight nominal (Kg./m <sup>2</sup> ) | 6,0   | 7,2   | 8,4   | 9,6   | 12,0   | 14,4   | 2,5   | 2,9   | 3,3   | 4,1    | 4,9    |
| J <sub>v</sub> (cm <sup>4</sup> /m)                    | 51,00 | 62,16 | 72,00 | 82,73 | 102,48 | 121,41 | 64,25 | 74,06 | 84,78 | 105,56 | 124,41 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                | 9,59  | 11,69 | 13,54 | 15,56 | 19,28  | 22,84  | 12,08 | 13,92 | 15,94 | 19,86  | 23,41  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                | 23,40 | 28,50 | 33,01 | 37,92 | 46,94  | 55,57  | 29,46 | 33,95 | 38,85 | 48,34  | 56,94  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                    | 14,12 | 17,27 | 20,09 | 23,18 | 28,95  | 34,16  | 17,86 | 20,67 | 23,76 | 29,83  | 35,01  |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabella portata **ACCIAIO - STEEL** load tables

Tabella portata **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| mm                                     | l = m  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 265  | 180  | 125  | 105  | 85   | 70   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6                                    |  | 365  | 230  | 160  | 135  | 105  | 85   | 70   | 55   |      |      |      |      |      |      |      |      | 180  | 100  | 55   |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,7                                    |  | 435  | 275  | 190  | 160  | 125  | 100  | 80   | 65   | 55   |      |      |      |      |      |      |      | 230  | 115  | 65   |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,8                                    |  | 510  | 325  | 220  | 180  | 145  | 115  | 90   | 75   | 60   | 50   |      |      |      |      |      |      | 270  | 135  | 70   | 55   |      |      |      |      |      |      |      |      |      |      |  |
| 1,0                                    |  | 655  | 415  | 285  | 225  | 180  | 140  | 115  | 95   | 75   | 60   | 50   |      |      |      |      |      | 340  | 165  | 90   | 70   | 50   |      |      |      |      |      |      |      |      |      |  |
| 1,2                                    |  | 805  | 510  | 345  | 270  | 210  | 170  | 135  | 110  | 90   | 75   | 60   | 50   |      |      |      |      | 400  | 195  | 105  | 80   | 60   |      |      |      |      |      |      |      |      |      |  |

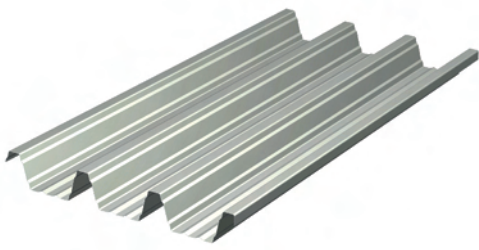
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| mm                                     | l = m  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 115  | 80   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6                                    |  | 165  | 115  | 80   | 70   | 60   | 55   |      |      |      |      |      |      |      |      |      |      | 80   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,7                                    |  | 220  | 150  | 110  | 95   | 80   | 70   | 60   | 55   | 50   |      |      |      |      |      |      |      | 105  | 70   | 50   |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,8                                    |  | 280  | 195  | 140  | 120  | 105  | 90   | 80   | 70   | 65   | 55   | 50   |      |      |      |      |      | 140  | 95   | 65   | 55   | 50   |      |      |      |      |      |      |      |      |      |  |
| 1,0                                    |  | 400  | 275  | 200  | 175  | 155  | 135  | 120  | 105  | 95   | 85   | 75   | 70   | 65   | 55   | 50   | 210  | 140  | 100  | 85   | 75   | 65   | 55   | 50   |      |      |      |      |      |      |      |  |
| 1,2                                    |  | 535  | 370  | 270  | 235  | 205  | 180  | 160  | 145  | 130  | 115  | 105  | 95   | 85   | 80   | 70   | 280  | 190  | 140  | 120  | 105  | 90   | 80   | 70   | 60   | 55   |      |      |      |      |      |  |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| mm                                     | l = m  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 140  | 95   | 70   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6                                    |  | 205  | 140  | 100  | 85   | 75   | 65   | 60   | 50   |      |      |      |      |      |      |      |      | 100  | 65   | 50   |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,7                                    |  | 265  | 180  | 130  | 115  | 100  | 90   | 75   | 70   | 60   | 55   | 50   |      |      |      |      |      | 130  | 90   | 65   | 55   |      |      |      |      |      |      |      |      |      |      |  |
| 0,8                                    |  | 340  | 235  | 170  | 150  | 130  | 115  | 100  | 90   | 80   | 70   | 65   | 60   | 55   | 50   |      |      | 165  | 115  | 80   | 70   | 60   | 55   |      |      |      |      |      |      |      |      |  |
| 1,0                                    |  | 480  | 335  | 245  | 215  | 190  | 165  | 150  | 130  | 120  | 105  | 95   | 90   | 80   | 70   | 60   | 250  | 175  | 125  | 110  | 95   | 80   | 70   | 55   |      |      |      |      |      |      |      |  |
| 1,2                                    |  | 645  | 450  | 330  | 290  | 255  | 225  | 200  | 180  | 160  | 145  | 130  | 110  | 95   | 80   | 70   | 335  | 235  | 170  | 150  | 130  | 105  | 80   | 65   | 50   |      |      |      |      |      |      |  |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 106 - D

## 798 (passo greche 250 mm)



Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50   | 0,60   | 0,70   | 0,80   | 1,00   | 1,20   | 0,60   | 0,70   | 0,80   | 1,00   | 1,20   |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 6,5    | 7,9    | 9,2    | 10,5   | 13,1   | 15,7   | 2,7    | 3,2    | 3,6    | 4,5    | 5,4    |
| J <sub>y</sub> (cm <sup>4</sup> /m)                     | 110,88 | 135,19 | 156,67 | 180,12 | 223,31 | 264,80 | 139,77 | 161,18 | 184,62 | 230,11 | 271,44 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 16,86  | 20,56  | 23,83  | 27,40  | 33,97  | 40,29  | 21,26  | 24,52  | 28,08  | 35,01  | 41,30  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 27,55  | 33,59  | 38,92  | 44,74  | 55,46  | 65,75  | 34,72  | 40,04  | 45,86  | 57,14  | 67,39  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 25,51  | 31,23  | 36,34  | 41,95  | 52,45  | 62,72  | 32,29  | 37,39  | 43,01  | 54,06  | 64,32  |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabella portata **ACCIAIO - STEEL** load tables

Tabella portata **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
| mm                                     | l = m  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 465  | 290  | 195  | 165  | 140  | 120  | 100  | 85   | 75   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,6                                    |  | 595  | 370  | 250  | 210  | 180  | 155  | 130  | 115  | 95   | 75   | 60   | 50   |      |      |      |      | 360  | 215  | 115  | 85   | 60   |      |      |      |      |      |      |      |      |      |  |  |  |
| 0,7                                    |  | 710  | 450  | 305  | 255  | 220  | 185  | 160  | 140  | 110  | 90   | 75   | 60   | 50   |      |      |      | 420  | 250  | 135  | 100  | 75   | 55   |      |      |      |      |      |      |      |      |  |  |  |
| 0,8                                    |  | 860  | 540  | 370  | 310  | 265  | 230  | 195  | 160  | 130  | 105  | 90   | 70   | 60   | 50   |      |      | 490  | 290  | 155  | 115  | 90   | 65   | 50   |      |      |      |      |      |      |      |  |  |  |
| 1,0                                    |  | 1000 | 730  | 500  | 420  | 360  | 310  | 250  | 205  | 165  | 135  | 115  | 95   | 75   | 65   | 50   | 645  | 365  | 200  | 150  | 115  | 85   | 65   | 50   |      |      |      |      |      |      |      |  |  |  |
| 1,2                                    |  | -    | 910  | 625  | 530  | 450  | 370  | 300  | 245  | 200  | 165  | 135  | 115  | 95   | 80   | 65   | 795  | 435  | 235  | 180  | 135  | 105  | 80   | 60   |      |      |      |      |      |      |      |  |  |  |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
| mm                                     | l = m  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 380  | 235  | 160  | 130  | 110  | 95   | 80   | 70   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
| 0,6                                    |  | 510  | 320  | 215  | 180  | 150  | 130  | 110  | 95   | 85   | 70   | 65   | 55   | 50   |      |      | 275  | 170  | 110  | 90   | 75   | 60   | 50   |      |      |      |      |      |      |      |      |  |  |
| 0,7                                    |  | 630  | 395  | 270  | 225  | 190  | 165  | 140  | 120  | 105  | 95   | 80   | 70   | 65   | 55   | 50   | 345  | 210  | 140  | 115  | 95   | 80   | 70   | 60   | 50   |      |      |      |      |      |      |  |  |
| 0,8                                    |  | 765  | 480  | 325  | 275  | 235  | 200  | 175  | 150  | 130  | 115  | 100  | 90   | 80   | 70   | 65   | 420  | 260  | 175  | 145  | 120  | 100  | 85   | 75   | 65   | 55   |      |      |      |      |      |  |  |
| 1,0                                    |  | 1000 | 635  | 435  | 365  | 310  | 270  | 230  | 205  | 180  | 155  | 140  | 125  | 110  | 100  | 90   | 580  | 365  | 245  | 205  | 170  | 145  | 125  | 110  | 95   | 80   | 70   | 60   | 55   |      |      |  |  |
| 1,2                                    |  | -    | 765  | 520  | 440  | 375  | 325  | 280  | 245  | 215  | 190  | 170  | 150  | 135  | 120  | 110  | 735  | 460  | 310  | 260  | 220  | 190  | 160  | 140  | 120  | 105  | 95   | 80   | 70   | 60   |      |  |  |

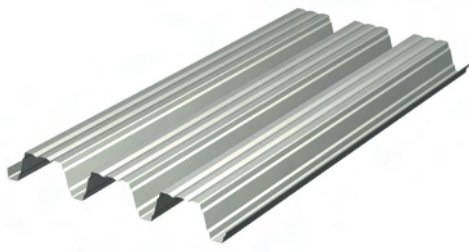
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P    |      |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
|  |  | l    |      |      |      |      |      |      |      |      |      |      |      |      |      | l    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
| mm                                     | l = m  | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 485  | 300  | 205  | 170  | 145  | 120  | 105  | 90   | 80   | 70   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
| 0,6                                    |  | 645  | 405  | 275  | 230  | 195  | 165  | 145  | 125  | 110  | 95   | 85   | 75   | 65   | 60   | 50   | 350  | 215  | 145  | 120  | 100  | 85   | 70   | 60   | 50   |      |      |      |      |      |      |  |  |
| 0,7                                    |  | 795  | 500  | 340  | 285  | 245  | 210  | 180  | 160  | 140  | 120  | 105  | 95   | 85   | 75   | 65   | 435  | 270  | 180  | 150  | 125  | 105  | 90   | 80   | 65   | 50   |      |      |      |      |      |  |  |
| 0,8                                    |  | 965  | 610  | 415  | 350  | 300  | 255  | 220  | 195  | 170  | 150  | 135  | 120  | 105  | 95   | 85   | 530  | 330  | 225  | 185  | 155  | 135  | 115  | 95   | 75   | 60   |      |      |      |      |      |  |  |
| 1,0                                    |  | 1000 | 805  | 550  | 465  | 395  | 340  | 295  | 260  | 230  | 205  | 180  | 160  | 145  | 130  | 115  | 735  | 460  | 310  | 260  | 220  | 190  | 150  | 120  | 95   | 80   | 65   | 50   |      |      |      |  |  |
| 1,2                                    |  | -    | 960  | 660  | 555  | 475  | 410  | 355  | 315  | 275  | 245  | 220  | 195  | 175  | 160  | 140  | 925  | 580  | 395  | 335  | 285  | 230  | 180  | 145  | 120  | 95   | 75   | 60   | 50   |      |      |  |  |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)





# ITPH 106 - R

798 (passo greche 250 mm)



Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALLUMINIUM** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50   | 0,60   | 0,70   | 0,80   | 1,00   | 1,20   | 0,60   | 0,70   | 0,80   | 1,00   | 1,20   |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 6,5    | 7,9    | 9,2    | 10,5   | 13,1   | 15,7   | 2,7    | 3,2    | 3,6    | 4,5    | 5,4    |
| J <sub>v</sub> (cm <sup>4</sup> /m)                     | 110,73 | 135,00 | 156,44 | 179,83 | 222,93 | 264,30 | 139,57 | 160,94 | 184,33 | 229,70 | 270,91 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 27,55  | 33,59  | 38,93  | 44,76  | 55,49  | 65,79  | 34,73  | 40,05  | 45,87  | 57,17  | 67,44  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 16,83  | 20,51  | 23,77  | 27,32  | 33,87  | 40,15  | 21,21  | 24,45  | 28,01  | 34,90  | 41,15  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 25,50  | 31,22  | 36,32  | 41,94  | 52,43  | 62,71  | 32,28  | 37,38  | 42,99  | 54,04  | 64,30  |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tablelle portata **ACCIAIO - STEEL** load tables

Tablelle portate **ALLUMINIO - ALLUMINIUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |       |      |      |      |      |      |      |      |      |      |      |      |      | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  | mm   | ℓ = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50   | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
| P = Kg./m <sup>2</sup>                 | 0,5  |       | 395  | 245  | 165  | 135  | 115  | 95   | 85   | 70   | 60   | 50   |      |      |  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|  | 0,6  |       | 530  | 330  | 220  | 185  | 155  | 135  | 115  | 100  | 85   | 70   | 55   |      |  |      |      | 285  | 175  | 100  | 70   | 55   |      |      |      |      |      |      |      |      |      |      |
|  | 0,7  |       | 655  | 410  | 280  | 235  | 200  | 170  | 145  | 125  | 105  | 85   | 70   | 55   |  |      |      | 355  | 220  | 120  | 90   | 65   | 50   |      |      |      |      |      |      |      |      |      |
|  | 0,8  |       | 790  | 500  | 340  | 285  | 240  | 210  | 180  | 155  | 125  | 100  | 85   | 70   | 55   |      |      | 440  | 265  | 140  | 105  | 80   | 60   |      |      |      |      |      |      |      |      |      |
|  | 1,0  |       | 1000 | 655  | 445  | 375  | 320  | 275  | 240  | 200  | 165  | 135  | 110  | 95   | 75   | 65   | 50   | 605  | 345  | 190  | 140  | 105  | 80   | 60   |      |      |      |      |      |      |      |      |
|  | 1,2  |       | -    | 1000 | 755  | 585  | 470  | 375  | 300  | 245  | 205  | 165  | 140  | 120  | 95   | 80   | 65   | 760  | 425  | 230  | 175  | 135  | 100  | 80   | 60   |      |      |      |      |      |      |      |

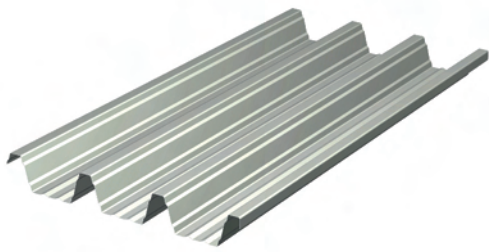
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |       |      |      |      |      |      |      |      |      |      |      |      |      | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  | mm   | ℓ = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50   | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
| P = Kg./m <sup>2</sup>                 | 0,5  |       | 400  | 260  | 180  | 150  | 130  | 110  | 95   | 85   | 75   | 65   | 55   | 50   |  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|  | 0,6  |       | 515  | 335  | 235  | 200  | 170  | 150  | 130  | 115  | 100  | 90   | 80   | 70   | 60   | 55   | 50   | 290  | 185  | 125  | 105  | 90   | 75   | 65   | 55   | 50   |      |      |      |      |      |      |
|  | 0,7  |       | 620  | 405  | 285  | 240  | 210  | 180  | 160  | 140  | 120  | 110  | 95   | 85   | 75   | 70   | 60   | 350  | 225  | 155  | 130  | 110  | 95   | 80   | 70   | 60   | 50   |      |      |      |      |      |
|  | 0,8  |       | 765  | 505  | 355  | 300  | 255  | 220  | 190  | 165  | 145  | 130  | 115  | 105  | 95   | 85   | 75   | 415  | 270  | 185  | 155  | 135  | 115  | 100  | 85   | 75   | 65   | 55   | 50   |      |      |      |
|  | 1,0  |       | 1000 | 650  | 460  | 390  | 335  | 295  | 255  | 225  | 200  | 180  | 160  | 145  | 130  | 115  | 105  | 550  | 360  | 250  | 210  | 180  | 155  | 135  | 120  | 105  | 90   | 80   | 70   | 55   |      |      |
|  | 1,2  |       | -    | 815  | 575  | 490  | 425  | 370  | 325  | 285  | 255  | 225  | 205  | 185  | 165  | 150  | 135  | 685  | 445  | 310  | 265  | 225  | 195  | 170  | 150  | 130  | 115  | 105  | 85   | 70   | 55   |      |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |       |      |      |      |      |      |      |      |      |      |      |      |      | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  | mm   | ℓ = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50   | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
| P = Kg./m <sup>2</sup>                 | 0,5  |       | 505  | 330  | 230  | 195  | 165  | 145  | 125  | 110  | 95   | 85   | 75   | 70   | 60   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|  | 0,6  |       | 650  | 425  | 300  | 255  | 220  | 190  | 165  | 145  | 130  | 115  | 105  | 90   | 80   | 75   | 65   | 370  | 240  | 165  | 140  | 120  | 95   | 75   | 60   |      |      |      |      |      |      |      |
|  | 0,7  |       | 780  | 515  | 360  | 310  | 265  | 230  | 205  | 180  | 160  | 140  | 125  | 115  | 100  | 90   | 80   | 445  | 285  | 200  | 170  | 145  | 115  | 90   | 70   | 55   |      |      |      |      |      |      |
|  | 0,8  |       | 965  | 635  | 450  | 380  | 325  | 280  | 245  | 215  | 190  | 170  | 150  | 135  | 120  | 110  | 95   | 525  | 340  | 240  | 200  | 175  | 140  | 110  | 85   | 70   | 55   |      |      |      |      |      |
|  | 1,0  |       | 1000 | 820  | 580  | 495  | 430  | 375  | 330  | 290  | 260  | 230  | 205  | 185  | 170  | 145  | 125  | 695  | 455  | 320  | 270  | 230  | 185  | 145  | 115  | 95   | 75   | 60   |      |      |      |      |
|  | 1,2  |       | -    | 1000 | 725  | 620  | 535  | 470  | 415  | 365  | 325  | 290  | 260  | 235  | 210  | 180  | 155  | 860  | 565  | 395  | 340  | 280  | 225  | 180  | 145  | 115  | 95   | 75   | 60   | 50   |      |      |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 106 - D

## 1040 (passo greche 333 mm)



| Spessore nominale<br>Nominal thickness (mm)             | Sezione lorda ACCIAIO - STEEL gross section |        |        |        |        |        | Sezione lorda ALLUMINIO - ALUMINUM gross section |        |        |        |        |
|---|---|--------|--------|--------|--------|--------|--|--------|--------|--------|--------|
|   | 0,50  | 0,60   | 0,70   | 0,80   | 1,00   | 1,20   | 0,60   | 0,70   | 0,80   | 1,00   | 1,20   |
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 5,9   | 7,1    | 8,2    | 9,4    | 11,8   | 14,1   | 2,4  | 2,8    | 3,2    | 4,1    | 4,9    |
| J <sub>y</sub> (cm <sup>4</sup> /m)                     | 98,43                                       | 120,16 | 139,40 | 160,45 | 199,40 | 237,03 | 124,23   | 143,42 | 164,47 | 205,48 | 242,97 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 13,60                                       | 16,60  | 19,26  | 22,17  | 27,56  | 32,76  | 17,16  | 19,82  | 22,73  | 28,40  | 33,59  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 29,28                                       | 35,74  | 41,46  | 47,71  | 59,27  | 70,43  | 36,95  | 42,65  | 48,90  | 61,07  | 72,19  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 21,57                                       | 26,42  | 30,76  | 35,53  | 44,47  | 53,24  | 27,32  | 31,65  | 36,42  | 45,84  | 54,60  |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabella portata **ACCIAIO - STEEL** load tables

Tabella portata **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
|  | mm   | ℓ = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 360   | 225  | 150  | 125  | 105  | 90   | 75   | 65   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
| 0,6                                    |  | 475   | 300  | 200  | 170  | 140  | 120  | 105  | 90   | 80   | 65   | 55   |      |      |      |      |      | 305  | 190  | 100  | 75   | 55   |      |      |      |      |      |      |      |      |      |      |  |  |
| 0,7                                    |  | 585   | 365  | 250  | 210  | 175  | 150  | 130  | 115  | 100  | 80   | 65   | 50   |      |      |      |      | 365  | 220  | 120  | 90   | 65   | 50   |      |      |      |      |      |      |      |      |      |  |  |
| 0,8                                    |  | 705   | 445  | 300  | 255  | 215  | 185  | 160  | 140  | 115  | 95   | 75   | 65   | 50   |      |      |      | 430  | 255  | 140  | 105  | 80   | 60   |      |      |      |      |      |      |      |      |      |  |  |
| 1,0                                    |  | 925   | 585  | 400  | 335  | 285  | 245  | 215  | 180  | 150  | 120  | 100  | 85   | 70   | 55   |      |      | 560  | 325  | 175  | 135  | 100  | 75   | 60   |      |      |      |      |      |      |      |      |  |  |
| 1,2                                    |  | 1000  | 725  | 495  | 420  | 355  | 305  | 265  | 220  | 180  | 150  | 120  | 100  | 85   | 70   | 60   |      | 680  | 385  | 210  | 160  | 120  | 95   | 70   | 55   |      |      |      |      |      |      |      |  |  |

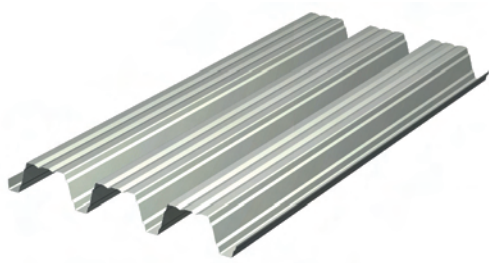
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|  | mm   | ℓ = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 300   | 185  | 120  | 100  | 85   | 70   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6                                    |  | 400   | 250  | 165  | 140  | 115  | 100  | 85   | 75   | 65   | 55   |      |      |      |      |      |      | 215  | 130  | 85   | 70   | 55   |      |      |      |      |      |      |      |      |      |      |  |
| 0,7                                    |  | 500   | 310  | 210  | 175  | 150  | 125  | 110  | 95   | 80   | 70   | 60   | 55   |      |      |      |      | 270  | 165  | 105  | 90   | 75   | 60   | 50   |      |      |      |      |      |      |      |      |  |
| 0,8                                    |  | 610   | 380  | 260  | 215  | 185  | 155  | 135  | 115  | 100  | 90   | 80   | 70   | 60   | 55   | 50   |      | 330  | 205  | 135  | 110  | 95   | 80   | 65   | 55   |      |      |      |      |      |      |      |  |
| 1,0                                    |  | 810   | 510  | 345  | 290  | 250  | 215  | 185  | 160  | 140  | 125  | 110  | 95   | 85   | 75   | 70   |      | 460  | 285  | 190  | 160  | 135  | 115  | 95   | 85   | 70   | 60   | 55   |      |      |      |      |  |
| 1,2                                    |  | 975   | 615  | 420  | 350  | 300  | 260  | 225  | 195  | 170  | 150  | 135  | 120  | 105  | 95   | 85   |      | 585  | 365  | 245  | 205  | 175  | 145  | 125  | 110  | 95   | 80   | 70   | 60   | 55   |      |      |  |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|  | mm   | ℓ = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 380   | 235  | 160  | 130  | 110  | 95   | 80   | 70   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6                                    |  | 505   | 315  | 215  | 180  | 150  | 130  | 110  | 95   | 85   | 75   | 65   | 55   | 50   |      |      |      | 275  | 165  | 110  | 90   | 75   | 65   | 55   |      |      |      |      |      |      |      |      |  |
| 0,7                                    |  | 630   | 395  | 265  | 225  | 190  | 165  | 140  | 120  | 105  | 95   | 80   | 75   | 65   | 55   | 50   |      | 340  | 210  | 140  | 115  | 95   | 80   | 70   | 60   | 50   |      |      |      |      |      |      |  |
| 0,8                                    |  | 765   | 485  | 330  | 275  | 235  | 200  | 175  | 150  | 135  | 115  | 105  | 90   | 80   | 75   | 65   |      | 420  | 260  | 175  | 145  | 120  | 105  | 90   | 75   | 65   | 50   |      |      |      |      |      |  |
| 1,0                                    |  | 1000  | 645  | 440  | 370  | 315  | 275  | 235  | 205  | 180  | 160  | 145  | 125  | 115  | 100  | 90   |      | 580  | 365  | 245  | 205  | 175  | 150  | 125  | 110  | 85   | 70   | 55   |      |      |      |      |  |
| 1,2                                    |  | -     | 775  | 530  | 445  | 380  | 330  | 285  | 250  | 220  | 195  | 175  | 155  | 140  | 125  | 110  |      | 740  | 465  | 315  | 265  | 225  | 190  | 160  | 130  | 105  | 85   | 70   | 55   |      |      |      |  |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)



# ITPH 106 - R

## 1040 (passo greche 333 mm)



Sezione lorda **ACCIAIO - STEEL** gross section

Sezione lorda **ALLUMINIO - ALUMINUM** gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,50  | 0,60   | 0,70   | 0,80   | 1,00   | 1,20   | 0,60   | 0,70   | 0,80   | 1,00   | 1,20   |
|---|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 5,9   | 7,1    | 8,2    | 9,4    | 11,8   | 14,1   | 2,4    | 2,8    | 3,2    | 4,1    | 4,9    |
| J <sub>v</sub> (cm <sup>4</sup> /m)                     | 98,28 | 119,96 | 139,15 | 160,14 | 198,98 | 236,46 | 124,02 | 143,16 | 164,15 | 205,03 | 242,38 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 29,28 | 35,73  | 41,45  | 47,70  | 59,27  | 70,43  | 36,94  | 42,64  | 48,89  | 61,07  | 72,19  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 13,57 | 16,56  | 19,21  | 22,11  | 27,47  | 32,65  | 17,12  | 19,77  | 22,66  | 28,31  | 33,47  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 21,54 | 26,38  | 30,70  | 35,46  | 44,37  | 53,11  | 27,28  | 31,59  | 36,35  | 45,73  | 54,46  |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tablelle portate **ACCIAIO - STEEL** load tables

Tablelle portate **ALLUMINIO - ALUMINUM** load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P     |      |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|  |  | l = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |
| mm                                     | l = m  | 2,00  | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |      |  |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 305   | 190  | 125  | 105  | 85   | 75   | 60   | 55   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,6                                    |  | 415   | 260  | 175  | 145  | 120  | 105  | 90   | 75   | 65   | 55   | 50   |      |      |      |      | 220  | 135  | 85   | 60   |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,7                                    |  | 515   | 325  | 220  | 180  | 155  | 130  | 115  | 100  | 85   | 75   | 60   | 50   |      |      |      | 275  | 170  | 105  | 75   | 55   |      |      |      |      |      |      |      |      |      |      |      |  |
| 0,8                                    |  | 635   | 400  | 270  | 225  | 190  | 165  | 140  | 125  | 105  | 90   | 75   | 60   | 50   |      |      | 345  | 210  | 125  | 95   | 70   | 50   |      |      |      |      |      |      |      |      |      |      |  |
| 1,0                                    |  | 840   | 530  | 360  | 305  | 260  | 220  | 190  | 165  | 145  | 120  | 100  | 80   | 70   | 55   |      | 485  | 300  | 165  | 125  | 95   | 70   | 55   |      |      |      |      |      |      |      |      |      |  |
| 1,2                                    |  | 1000  | 1000 | 675  | 525  | 415  | 330  | 265  | 220  | 180  | 145  | 120  | 100  | 85   | 70   | 55   | 615  | 380  | 205  | 155  | 120  | 90   | 70   | 50   |      |      |      |      |      |      |      |      |  |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P     |      |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | l = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
| mm                                     | l = m  | 2,00  | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |      |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 275   | 180  | 125  | 105  | 90   | 75   | 65   | 55   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 370   | 240  | 170  | 145  | 125  | 105  | 90   | 80   | 70   | 60   | 55   | 50   |      |      |      | 235  | 150  | 105  | 85   | 75   | 65   | 55   |      |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 455   | 300  | 210  | 180  | 155  | 135  | 120  | 105  | 90   | 80   | 70   | 65   | 55   | 50   |      | 280  | 180  | 125  | 105  | 90   | 75   | 65   | 55   | 50   |      |      |      |      |      |      |      |
| 0,8                                    |  | 555   | 370  | 260  | 225  | 195  | 170  | 145  | 130  | 115  | 100  | 90   | 80   | 70   | 65   | 55   | 330  | 215  | 150  | 125  | 110  | 95   | 80   | 70   | 60   | 55   |      |      |      |      |      |      |
| 1,0                                    |  | 740   | 495  | 350  | 300  | 260  | 225  | 195  | 175  | 155  | 135  | 120  | 110  | 100  | 90   | 80   | 435  | 285  | 200  | 170  | 145  | 125  | 110  | 95   | 85   | 75   | 65   | 55   | 50   |      |      |      |
| 1,2                                    |  | 920   | 615  | 440  | 380  | 325  | 285  | 250  | 220  | 195  | 175  | 155  | 140  | 125  | 115  | 105  | 530  | 350  | 250  | 210  | 180  | 155  | 135  | 120  | 105  | 95   | 80   | 75   | 60   |      |      |      |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P     |      |      |      |      |      |      |      |      |      |      |      |      |      | P    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |  | l = m | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |
| mm                                     | l = m  | 2,00  | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 | 2,00 | 2,50 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |      |
| 0,5                                    | P = Kg./m <sup>2</sup>   | 350   | 230  | 160  | 135  | 115  | 100  | 85   | 75   | 65   | 60   | 50   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,6                                    |  | 465   | 310  | 215  | 185  | 160  | 140  | 120  | 105  | 95   | 85   | 75   | 65   | 60   | 50   |      | 295  | 195  | 135  | 115  | 95   | 85   | 65   | 50   |      |      |      |      |      |      |      |      |
| 0,7                                    |  | 575   | 380  | 270  | 230  | 200  | 175  | 155  | 135  | 120  | 105  | 95   | 85   | 75   | 70   | 60   | 355  | 230  | 160  | 135  | 120  | 100  | 80   | 65   | 50   |      |      |      |      |      |      |      |
| 0,8                                    |  | 700   | 465  | 330  | 285  | 245  | 215  | 190  | 165  | 150  | 130  | 120  | 105  | 95   | 85   | 75   | 415  | 275  | 195  | 165  | 140  | 120  | 95   | 75   | 60   |      |      |      |      |      |      |      |
| 1,0                                    |  | 930   | 625  | 445  | 380  | 330  | 290  | 255  | 225  | 200  | 175  | 160  | 145  | 130  | 115  | 105  | 545  | 360  | 255  | 220  | 190  | 160  | 130  | 105  | 80   | 65   | 50   |      |      |      |      |      |
| 1,2                                    |  | 1000  | 775  | 555  | 480  | 415  | 365  | 320  | 285  | 250  | 225  | 205  | 185  | 165  | 150  | 135  | 670  | 445  | 315  | 270  | 235  | 200  | 160  | 125  | 100  | 80   | 65   | 55   |      |      |      |      |

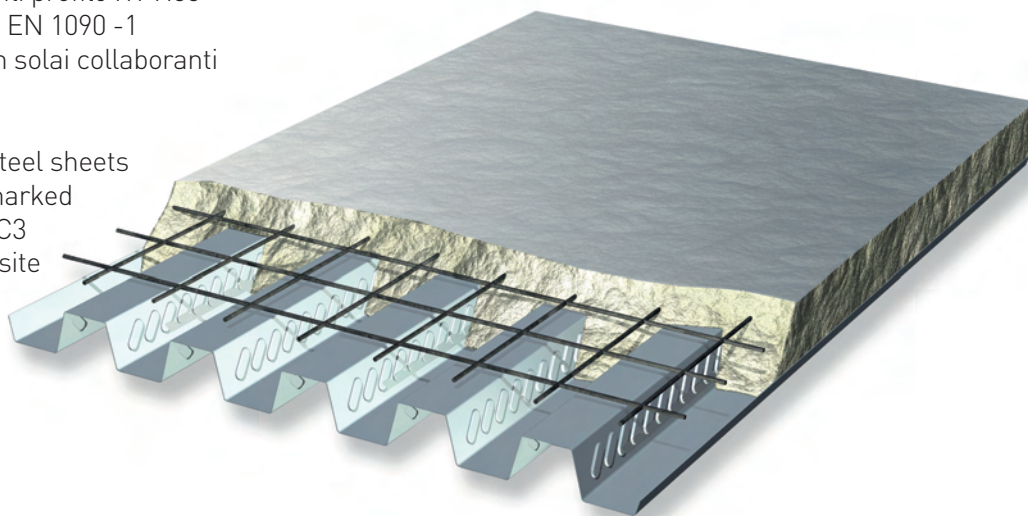
Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

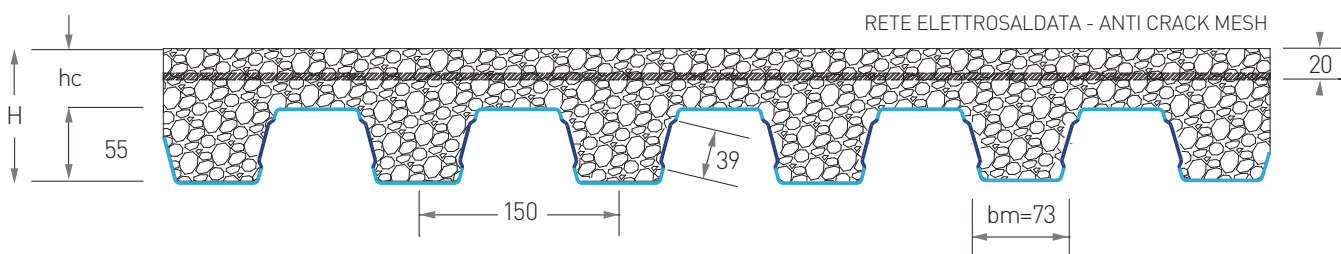
Valori in ROSSO: stati limite di esercizio (limitazione freccia 1/200 della luce)  
RED values: serviceability limit states (deflection 1/200 span)

Lamiere grecate collaboranti profilo ITPH55  
 marcate CE in accordo alla EN 1090 -1  
 Classe EXC3 da utilizzare in solai collaboranti  
 acciaio - calcestruzzo

Collaborating trapezoidal steel sheets  
 ITP H55 Beton profile CE marked  
 according to EN 1090-1 EXC3  
 class to be used for composite  
 floor steel - concrete.



Passo greche - Ribs step 600 mm - **5 Greche - Ribs**  
 Passo greche - Ribs step 750 mm - **6 Greche - Ribs**  
 Passo greche - Ribs step 900 mm - **7 Greche - Ribs**



## Materiali per solai collaboranti / Materials for collaborating floor

|                                      |                      |                             |
|--------------------------------------|----------------------|-----------------------------|
| Lamiere di acciaio<br>Steel sheet    | Tipo - Type          | S280GD UNI EN 10346         |
|                                      | Spessore - Thickness | Par. 4.3.6.5.1 NTC/2008     |
| Calcestrutto<br>Concrete             | Classe - Class       | C25/30 D.M. 14/01/2008      |
|                                      | Spessore - Thickness | hc ≥ 40 mm                  |
| Diametro inerte<br>Diameter concrete | ≤                    | 0,4 * hc<br>bm/ 3 = 24,3 mm |

Sezione minima rete elettrosaldata di ripartizione  
 (a 20 mm dall'estradosso della soletta)  
 Minimum section detailed rebars and anti-crack mesh  
 (at 20 mm from top slab)

| H  | A ** | Non puntellate/Un-supported |  | Puntellate/Supported |  |
|----|------|-----------------------------|--|----------------------|--|
|    |      | 0,2 % A                     | Rete elettrosaldata<br>Anti-crack mesh | 0,4 % A              | Rete elettrosaldata<br>Anti-crack mesh |
| 10 | 450  | 0,9                         | Ø5 (200 X 200)                         | 1,8                  | Ø6 (150 X 150)                         |
| 11 | 550  | 1,1                         | Ø6 (200 X 200)                         | 2,2                  | Ø6 (100 X 100)                         |
| 12 | 650  | 1,3                         | Ø6 (200 X 200)                         | 2,6                  | Ø6 (100 X 100)                         |

\* Lo spessore delle lamiere grecate non deve essere inferiore a 0,80 mm; lo spessore potrà essere ridotto a 0,70 mm quando, in fase costruttiva, vengano studiati idonei provvedimenti atti a consentire il transito in sicurezza di mezzi e persone / The thickness of trapezoidal sheets used for composite floor cannot be less than 0,80 mm; the thickness could be reduced to 0,70mm in case, during installation, suitable actions will be taken in order to allow the safe passage of means and people.

\*\* Sezione trasversale della soletta di calcestruzzo sopra le nervature  
 Cross-wise section of the composite floor above ribs.

## Sequenze montaggio - Assembly sequence

Posa lamiere e fissaggio con viti alle travi di sostegno  
 (opzionale rivettatura delle greche di sormonto a passo 1 metro) /  
 Assembling trapezoidal sheets and fixing with screws to supporting beams  
 (as options use rivets on the overlapping ribs at one meter step).

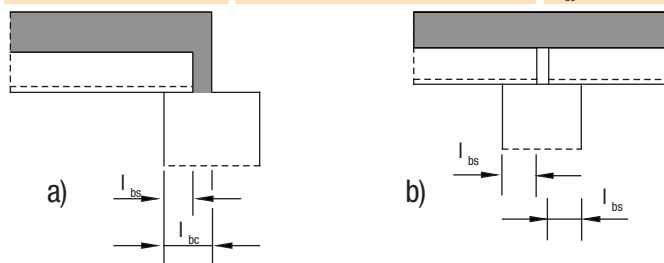
Le lamiere vanno accostate  
 testa - testa / Trapezoidal  
 sheets will be assembled  
 head to head.

appoggio in acciaio o calcestruzzo /  
 steel or concrete support

$l_{bs} \geq 50$  mm  
 $l_{bc} \geq 75$  mm

appoggio in altro materiale /  
 other material support

$l_{bs} \geq 70$  mm  
 $l_{bc} \geq 100$  mm



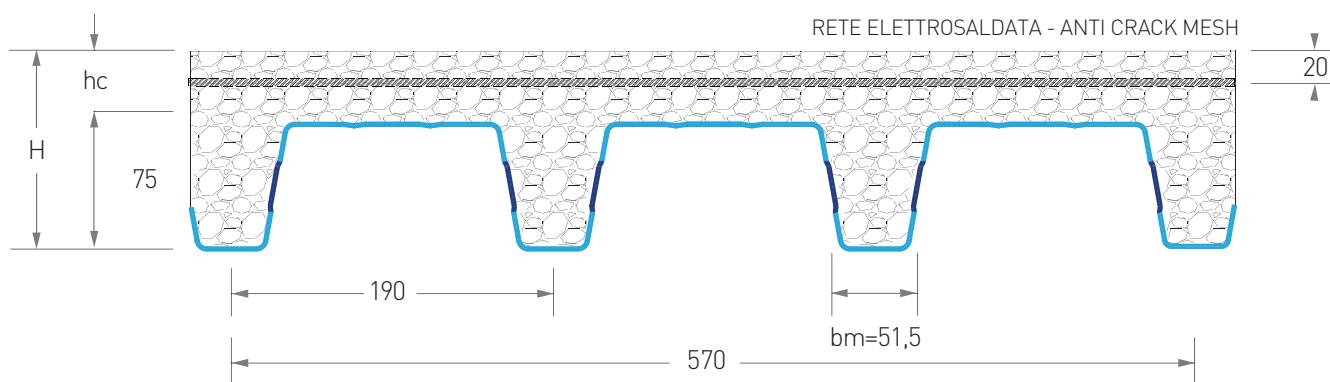
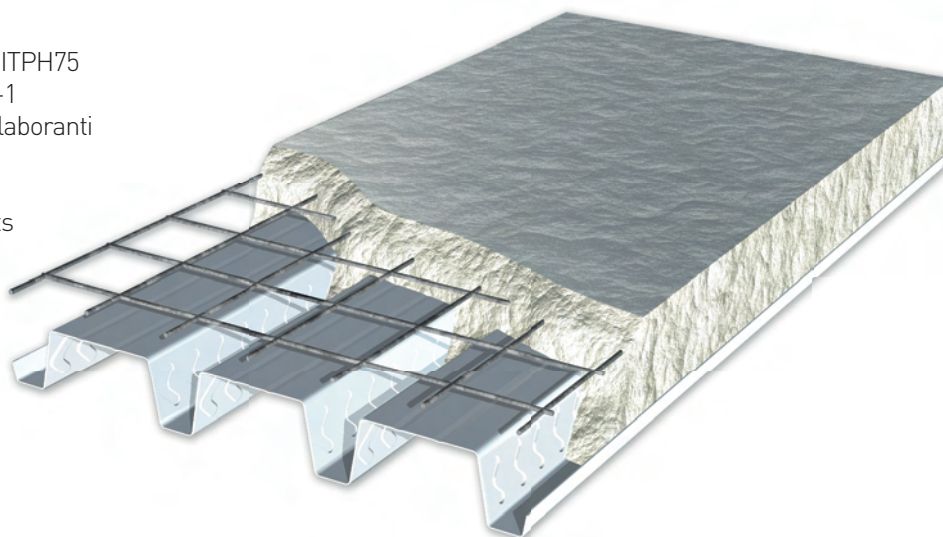
Se necessario puntellare la lamiera per aumentare il numero di appoggi  
 In order to increase the number of supports, if necessary, put additional  
 supports under the trapezoidal sheets.

Posa della rete elettrosaldata a 20 mm dall'estradosso  
 (la rete va sormontata con idonee sovrapposizioni) / Assembling of the  
 anti-crack mesh at 20 mm from top slab.  
 (the anti-crack mesh is assembled with suitable overlapping)

Getto di calcestruzzo in corrispondenza degli appoggi e successiva  
 distribuzione su tutta la superficie / Concrete casting in correspondence  
 of supports and consequent distribution on the whole surface.

Lamiere grecate collaboranti profilo ITPH75  
 marcate CE in accordo alla EN 1090-1  
 Classe EXC3 da utilizzare in solai collaboranti  
 acciaio - calcestruzzo

Collaborating trapezoidal steel sheets  
 ITP H75 Beton profile CE marked  
 according to EN 1090-1 EXC3 class  
 to be used for composite  
 floor steel - concrete.



## Materiali per solai collaboranti / Materials for collaborating floor

|                                   |                      |                         |
|-----------------------------------|----------------------|-------------------------|
| Lamiere di acciaio<br>Steel sheet | Tipo - Type          | S280GD UNI EN 10346     |
|                                   | Spessore - Thickness | Par. 4.3.6.5.1 NTC/2008 |
| Calcestrutto<br>Concrete          | Classe - Class       | C25/30 D.M. 14/01/2008  |
|                                   | Spessore - Thickness | $h_c \geq 40$ mm        |

|                                      |        |                      |
|--------------------------------------|--------|----------------------|
| Diametro inerte<br>Diameter concrete | $\leq$ | $0,4 * h_c$          |
|                                      |        | $b_m / 3 = 17,16$ mm |

Sezione minima rete elettrosaldada di ripartizione  
 (a 20 mm dall'estradosso della soletta)  
 Mininum section detailed rebars and anti-crack mesh  
 (at 20 mm from top slab)

| H  | A **               | Non puntellate/Un-supported |  | Puntellate/Supported |  |
|----|--------------------|-----------------------------|--|----------------------|--|
| cm | cm <sup>2</sup> /m | 0,2 % A                     | Rete elettrosaldada<br>Anti-crack mesh | 0,4 % A              | Rete elettrosaldada<br>Anti-crack mesh |
| 12 | 450                | 0,9                         | Ø 5 (200 X 200)                        | 1,8                  | Ø 6 (150 X 150)                        |
| 13 | 550                | 1,1                         | Ø 6 (200 X 200)                        | 2,2                  | Ø 6 (100 X 100)                        |
| 14 | 650                | 1,3                         | Ø 6 (200 X 200)                        | 2,6                  | Ø 6 (100 X 100)                        |
| 15 | 750                | 1,5                         | Ø 6 (200 X 200)                        | 3,0                  | Ø 8 (150 X 150)                        |

\* Lo spessore delle lamiere grecate non deve essere inferiore a 0,80 mm; lo spessore potrà essere ridotto a 0,70 mm quando, in fase costruttiva, vengano studiati idonei provvedimenti atti a consentire il transito in sicurezza di mezzi e persone / The thickness of trapezoidal sheets used for composite floor cannot be less than 0,80 mm; the thickness could be reduced to 0,70mm in case, during installation, suitable actions will be taken in order to allow the safe passage of means and people.

\*\* Sezione trasversale della soletta di calcestruzzo sopra le nervature / Cross-wise section of the composite floor above ribs.

## Sequenze montaggio - Assembly sequence

Posa lamiere e fissaggio con viti alle travi di sostegno  
 (opzionale rivettatura delle greche di sormonto a passo 1 metro) /  
 Assembling trapezoidal sheets and fixing with screws to supporting beams  
 (as options use rivets on the overlapping ribs at one meter step).

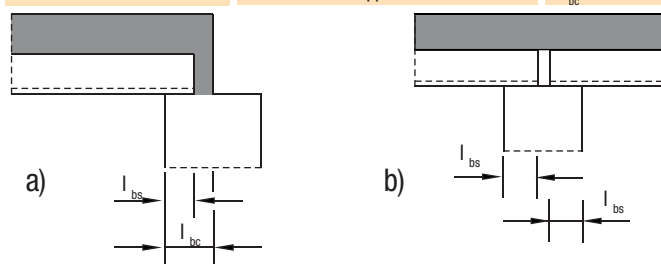
Le lamiere vanno accostate  
 testa - testa / Trapezoidal  
 sheets will be assembled  
 head to head.

appoggio in acciaio o calcestruzzo /  
 steel or concrete support

$l_{bs} \geq 50$  mm  
 $l_{bc} \geq 75$  mm

appoggio in altro materiale /  
 other material support

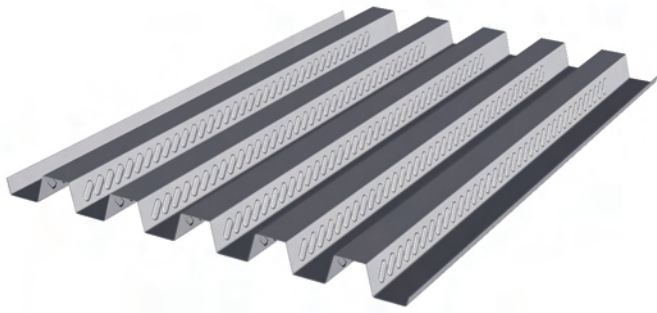
$l_{bs} \geq 70$  mm  
 $l_{bc} \geq 100$  mm



Se necessario puntellare la lamiera per aumentare il numero di appoggi /  
 In order to increase the number of supports, if necessary, put additional  
 supports under the trapezoidal sheets.

Posa della rete elettrosaldada a 20 mm dall'estradosso  
 (la rete va sormontata con idonee sovrapposizioni) / Assembling of the  
 anti-crack mesh at 20 mm from top slab.  
 (the anti-crack mesh is assembled with suitable overlapping)

Getto di calcestruzzo in corrispondenza degli appoggi e successiva  
 distribuzione su tutta la superficie / Concrete casting in correspondance  
 of supports and consequent distribution on the whole surface.



# ITP H55 - BETON

## 600 - 750 - 900

Marcatura CE in accordo EN 1090-1 classe EXC3

CE mark according to EN 1090-1 EXC3 class

**Limite di freccia 20 mm o L = 1/180 della luce**

**Serviceability limit states 20 mm or L = 1/180 span**

**Acciaio zincato / Galvanized steel**  
**S280 GD - UNI EN 10346**

Sezione lorda **ACCIAIO** - STEEL gross section

| Spessore nominale<br>Nominal thickness (mm)             | 0,70  | 0,80  | 1,00  | 1,20  | 1,50  |
|---|-------|-------|-------|-------|-------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 9,2   | 10,5  | 13,1  | 15,7  | 19,6  |
| J <sub>v</sub> (cm <sup>4</sup> /m)                     | 47,01 | 53,57 | 66,96 | 79,74 | 98,57 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 17,09 | 19,48 | 24,35 | 28,99 | 35,91 |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 17,09 | 19,48 | 24,35 | 28,99 | 35,91 |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 19,70 | 22,56 | 28,46 | 34,22 | 43,02 |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabelle portata **ACCIAIO** - STEEL load tables

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  |  | l |  |  |  |  |  |  |  |  |  |  |  |  |  |

| mm   | l = m                  | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |
|------|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0,70 | P = Kg./m <sup>2</sup> | 782  | 572  | 432  | 337  |      |      |      |      |      |      |      |      |      |      |      |
| 0,80 |                        | 943  | 693  | 528  | 393  | 329  |      |      |      |      |      |      |      |      |      |      |
| 1,00 |                        | 1295 | 960  | 734  | 562  | 440  | 352  |      |      |      |      |      |      |      |      |      |
| 1,20 |                        | 1298 | 1248 | 917  | 670  | 517  | 414  | 342  |      |      |      |      |      |      |      |      |
| 1,50 |                        | 1301 | 1301 | 1161 | 843  | 640  | 508  | 410  | 347  |      |      |      |      |      |      |      |

| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  |  | l |  |  |  |  |  |  |  |  |  |  |  |  |  |

| mm   | l = m                  | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |
|------|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0,70 | P = Kg./m <sup>2</sup> | 512  | 402  | 322  |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,80 |                        | 628  | 493  | 398  | 328  |      |      |      |      |      |      |      |      |      |      |      |
| 1,00 |                        | 895  | 700  | 565  | 465  | 390  | 330  |      |      |      |      |      |      |      |      |      |
| 1,20 |                        | 1183 | 928  | 748  | 618  | 518  | 438  | 393  | 338  |      |      |      |      |      |      |      |
| 1,50 |                        | 1301 | 1301 | 1051 | 866  | 726  | 621  | 556  | 481  | 419  | 360  |      |      |      |      |      |

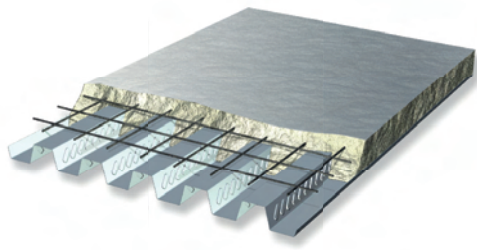
| Spessore nominale<br>Nominal thickness | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | P |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  |  | l |  |  |  |  |  |  |  |  |  |  |  |  |  |

| mm   | l = m                  | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |
|------|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0,70 | P = Kg./m <sup>2</sup> | 542  | 427  | 347  |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,80 |                        | 668  | 523  | 423  | 348  |      |      |      |      |      |      |      |      |      |      |      |
| 1,00 |                        | 950  | 745  | 605  | 495  | 415  | 355  | 305  |      |      |      |      |      |      |      |      |
| 1,20 |                        | 1258 | 988  | 798  | 658  | 553  | 473  | 418  | 360  |      |      |      |      |      |      |      |
| 1,50 |                        | 1301 | 1301 | 1121 | 926  | 776  | 661  | 595  | 514  | 448  | 391  |      |      |      |      |      |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: Limite di freccia 20 mm o L = 1/180 della luce  
RED values: serviceability limit states 20 mm or L = 1/180 span



# ITP H55 BETON

600/750 / 900



**Acciaio zincato / Galvanized steel**  
**S280 GD - UNI EN 10346**

Per lo S.L.S. elemento appoggiato limitazione 1/300 della freccia - For S.L.S. supported element deflection 1/300 span

- rottura cilindrica / cylinder break  $f_{ck} = 25 \text{ N/mm}^2$
- soletta con calcestruzzo normale / composite floor with normal concrete

Carico permanente / permanent load  $p = 0,00 \text{ KN/m}^2$

(il carico permanente comprende il peso di pavimentazione, sottofondo e impianti fissi)  
(the permanent load includes floor weight, subgrade and fixed equipments)

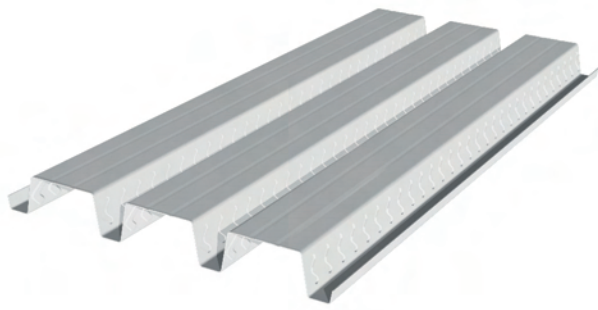
## TABELLE PORTATE - LOAD TABLE

Resistenza al taglio longitudinale: metodo di "interazione parziale" / Longitudinal shear resistance: method of partial interaction

| H<br>Spessore<br>soletta<br>/ Steel<br>thickness<br>Thickness<br>composite<br>floor | S<br>Spessore<br>lamiera<br>/ Steel<br>thickness | Peso<br>soletta<br>/ Weight<br>composite<br>floor | Luce massima in<br>fase di getto /<br>Max span during<br>concrete casting |       |       | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm | q   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|---|--|---|---|-------|-------|--|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|   |  |   | 2 app   | 3 app | 4 app |  | q = carico di esercizio variabile / service variable load |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|   |  |   |   |       |       |  |   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|   |  |   |   |       |       | l=m  | 1,50  | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |
| 100<br>mm   | 0,7  | 185,1   | 2,25  | 2,00  | 2,00  | q = Kg./m <sup>2</sup>   | 2105  | 1560 | 1200 | 950  | 765  | 630  | 520  | 435  | 370  | 310  | 265  | 225  | 190  |      |      |      |      |      |      |  |
|   | 0,8  | 186,1   | 2,50  | 2,25  | 2,25  |  | 2235  | 1720 | 1320 | 1045 | 845  | 690  | 575  | 480  | 405  | 345  | 295  | 250  | 215  |      |      |      |      |      |      |  |
| τ <sub>u,Rd</sub><br>0,091<br>N/mm <sup>2</sup>                                     | 1,0  | 188,3   | 2,75  | 2,75  | 3,00  |  | 2215  | 1875 | 1570 | 1240 | 1000 | 820  | 680  | 570  | 480  | 410  | 350  | 300  | 260  |      |      |      |      |      |      |  |
|   | 1,2  | 190,4   | 3,00  | 3,25  | 3,25  |  | 2200  | 1860 | 1605 | 1405 | 1145 | 940  | 780  | 655  | 555  | 475  | 405  | 350  | 300  |      |      |      |      |      |      |  |
|   | 1,5  | 193,8   | 3,25  | 3,75  | 3,75  |  | 2170  | 1835 | 1585 | 1385 | 1230 | 1105 | 930  | 780  | 650  | 565  | 485  | 420  | 360  |      |      |      |      |      |      |  |
| 110<br>mm   | 0,7  | 209,6   | 2,25  | 2,00  | 2,00  | q = Kg./m <sup>2</sup>   | 2265  | 1685 | 1300 | 1030 | 835  | 685  | 570  | 480  | 405  | 345  | 295  | 250  | 215  | 180  | 155  |      |      |      |      |  |
|   | 0,8  | 210,6   | 2,25  | 2,25  | 2,25  |  | 2495  | 1850 | 1425 | 1130 | 915  | 750  | 625  | 525  | 445  | 380  | 325  | 275  | 235  | 205  | 175  |      |      |      |      |  |
| τ <sub>u,Rd</sub><br>0,091<br>N/mm <sup>2</sup>                                     | 1,0  | 212,8   | 2,75  | 2,75  | 2,75  |  | 2525  | 2135 | 1680 | 1325 | 1075 | 880  | 735  | 620  | 525  | 445  | 380  | 330  | 285  | 245  | 210  |      |      |      |      |  |
|   | 1,2  | 214,9   | 2,75  | 3,25  | 3,25  |  | 2505  | 2120 | 1830 | 1515 | 1225 | 1005 | 835  | 705  | 595  | 510  | 440  | 375  | 325  | 280  | 245  |      |      |      |      |  |
|   | 1,5  | 218,3   | 3,00  | 3,75  | 3,75  |  | 2470  | 2090 | 1805 | 1580 | 1405 | 1190 | 990  | 835  | 705  | 605  | 520  | 450  | 390  | 335  | 300  |      |      |      |      |  |
| 120<br>mm   | 0,7  | 234,1   | 2,00  | 1,75  | 1,75  | q = Kg./m <sup>2</sup>   | 2430  | 1810 | 1400 | 1115 | 905  | 745  | 625  | 530  | 445  | 375  | 320  | 275  | 235  | 200  | 170  | 145  | 120  |      |      |  |
|   | 0,8  | 235,1   | 2,25  | 2,00  | 2,25  |  | 2670  | 1980 | 1530 | 1215 | 990  | 810  | 675  | 575  | 485  | 410  | 355  | 300  | 265  | 225  | 190  | 160  | 140  |      |      |  |
| τ <sub>u,Rd</sub><br>0,091<br>N/mm <sup>2</sup>                                     | 1,0  | 237,3   | 2,50  | 2,50  | 2,75  |  | 2830  | 2320 | 1785 | 1415 | 1145 | 950  | 790  | 665  | 565  | 480  | 415  | 355  | 305  | 265  | 235  | 195  | 165  |      |      |  |
|   | 1,2  | 239,4   | 2,75  | 3,00  | 3,00  |  | 2810  | 2375 | 2035 | 1610 | 1300 | 1070 | 895  | 755  | 640  | 545  | 475  | 410  | 350  | 305  | 265  | 230  | 195  |      |      |  |
|   | 1,5  | 242,8   | 3,00  | 3,50  | 3,75  |  | 2775  | 2345 | 2025 | 1780 | 1520 | 1260 | 1055 | 890  | 755  | 645  | 555  | 480  | 420  | 365  | 320  | 275  | 235  |      |      |  |
| 130<br>mm   | 0,7  | 258,6   | 2,00  | 1,75  | 1,75  | q = Kg./m <sup>2</sup>   | 2600  | 1940 | 1505 | 1200 | 975  | 805  | 670  | 565  | 480  | 410  | 350  | 300  | 255  | 220  | 185  | 160  | 135  | 110  |      |  |
|   | 0,8  | 259,6   | 2,25  | 2,00  | 2,00  |  | 2835  | 2110 | 1635 | 1300 | 1055 | 870  | 730  | 615  | 520  | 445  | 380  | 325  | 280  | 240  | 205  | 170  | 150  | 125  |      |  |
| τ <sub>u,Rd</sub><br>0,091<br>N/mm <sup>2</sup>                                     | 1,0  | 261,8   | 2,50  | 2,50  | 2,50  |  | 3000  | 2460 | 1900 | 1505 | 1220 | 1010 | 840  | 710  | 605  | 515  | 445  | 380  | 330  | 285  | 245  | 210  | 180  | 155  |      |  |
|   | 1,2  | 263,9   | 2,75  | 3,00  | 3,00  |  | 3000  | 2635 | 2130 | 1705 | 1380 | 1135 | 950  | 800  | 680  | 585  | 500  | 435  | 375  | 325  | 280  | 245  | 210  | 180  |      |  |
|   | 1,5  | 267,3   | 3,00  | 3,50  | 3,50  |  | 3000  | 2600 | 2245 | 1960 | 1600 | 1330 | 1110 | 935  | 795  | 685  | 590  | 510  | 440  | 385  | 335  | 290  | 255  | 220  |      |  |

τ<sub>u,Rd</sub> = determinato con Rapporto di Prova N° 306239: prova di carico su solaio in calcestruzzo secondo il D.M. 14/01/2008 e la norma UNI EN 1994-1-1:2005 e relazione tecnica N° 309245 - Valutazione della resistenza al taglio longitudinale di progetto di solette composte con lamiera grecate / Calculated with test report N° 306239: load test on concrete floor according to D.M. 14/01/2008 and norm UNI EN 1994-1-1:2005 and technical report N° 309245 - valuation of design longitudinal shear of concrete composite floor with trapezoidal steel sheet.

I valori delle tabelle sono stati determinati considerando coefficienti di combinazioni delle azioni variabili come previsto dalle NTC 08 per edifici di categoria D (ambiente ad uso commerciale). Il contenuto delle tabelle è da considerarsi con semplice valore indicativo. E' competenza del progettista calcolare per ogni singolo caso i relativi valori. The table values have been calculated considering combination coefficient of variable actions as expected by NTC 08 for D category building (commercial use building). The table content is to be considered as indicative: it's competence of designer to calculate, for every single case, the relative values.



# ITP H75 - BETON 570

Marcatura CE in accordo EN 1090-1 classe EXC3  
CE mark according to EN 1090-1 EXC3 class

**Acciaio zincato / Galvanized steel**  
**S280 GD - UNI EN 10346**


**Limite di freccia 20 mm o L = 1/180 della luce**  
**Serviceability limit states 20 mm or L = 1/180 span**


Sezione lorda **ACCIAIO** - STEEL gross section


| Spessore nominale<br>Nominal thickness (mm)             | 0,70  | 0,80  | 1,00   | 1,20   | 1,50   |
|---|-------|-------|--------|--------|--------|
| Peso nominale *<br>Weight nominal (Kg./m <sup>2</sup> ) | 9,6   | 11,0  | 13,8   | 16,5   | 20,7   |
| J <sub>y</sub> (cm <sup>4</sup> /m)                     | 81,65 | 92,96 | 116,00 | 137,90 | 173,18 |
| W <sub>e,inf</sub> (cm <sup>3</sup> /m)                 | 17,35 | 19,76 | 24,65  | 29,31  | 36,82  |
| W <sub>e,sup</sub> (cm <sup>3</sup> /m)                 | 29,22 | 33,27 | 41,50  | 49,33  | 61,94  |
| W <sub>p</sub> (cm <sup>3</sup> /m)                     | 25,50 | 29,18 | 36,80  | 44,22  | 56,49  |

\* peso calcolato rispetto alla larghezza utile - weight calculated relevant to working width

Tabelle portate **ACCIAIO** - STEEL load tables

| Spessore nominale<br>Nominal thickness |                        | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|------------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |                        |  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| mm                                     | l = m                  | 1,50   | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |
| 0,70                                   | P = Kg./m <sup>2</sup> | 998  | 768  | 583  | 458  | 368  | 303  |      |      |      |      |      |      |      |      |      |
| 0,80                                   |                        | 1209   | 884  | 674  | 529  | 429  | 349  | 294  |      |      |      |      |      |      |      |      |
| 1,00                                   |                        | 1282   | 1152 | 882  | 692  | 557  | 462  | 377  | 302  |      |      |      |      |      |      |      |
| 1,20                                   |                        | 1284   | 1284 | 1089 | 859  | 694  | 564  | 479  | 406  | 349  |      |      |      |      |      |      |
| 1,50                                   |                        | 1288   | 1288 | 1288 | 1153 | 933  | 768  | 641  | 545  | 457  | 378  |      |      |      |      |      |

| Spessore nominale<br>Nominal thickness |                        | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|------------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |                        |  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| mm                                     | l = m                  | 1,50   | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |
| 0,70                                   | P = Kg./m <sup>2</sup> | 528  | 413  | 338  |      |      |      |      |      |      |      |      |      |      |      |      |
| 0,80                                   |                        | 664  | 529  | 434  | 354  | 299  |      |      |      |      |      |      |      |      |      |      |
| 1,00                                   |                        | 947  | 752  | 627  | 517  | 437  | 372  |      |      |      |      |      |      |      |      |      |
| 1,20                                   |                        | 1249   | 989  | 824  | 679  | 569  | 484  | 419  | 364  | 319  |      |      |      |      |      |      |
| 1,50                                   |                        | 1288   | 1288 | 1288 | 1156 | 978  | 833  | 723  | 633  | 558  | 493  | 418  | 393  | 356  | 323  |      |

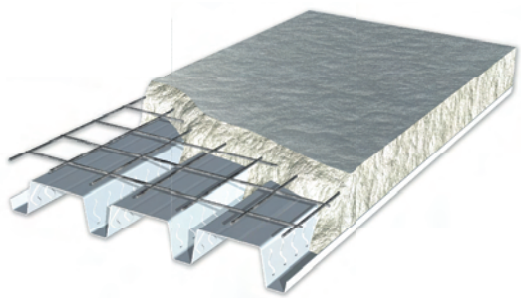
| Spessore nominale<br>Nominal thickness |                        | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|------------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |                        |  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| mm                                     | l = m                  | 1,50   | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |
| 0,70                                   | P = Kg./m <sup>2</sup> | 558  | 443  | 363  | 298  |      |      |      |      |      |      |      |      |      |      |      |
| 0,80                                   |                        | 704  | 559  | 459  | 379  | 319  |      |      |      |      |      |      |      |      |      |      |
| 1,00                                   |                        | 1002   | 797  | 667  | 552  | 462  | 397  | 342  | 297  |      |      |      |      |      |      |      |
| 1,20                                   |                        | 1284   | 1049 | 874  | 724  | 609  | 519  | 449  | 389  |      |      |      |      |      |      |      |
| 1,50                                   |                        | 1288   | 1288 | 1288 | 1288 | 1038 | 888  | 768  | 668  | 593  | 516  | 453  | 401  | 353  |      |      |

Carichi variabili uniformemente distribuiti  
Variable uniformly distributed loads

Valori in BLU: stati limite ultimo  
BLU values: ultimate limit states

Valori in ROSSO: Limite di freccia 20 mm o L = 1/180 della luce  
RED values: serviceability limit states 20 mm or L = 1/180 span





# ITP H75 BETON



570 (Passo Greche / Ribs step 190 mm)

**Acciaio zincato / Galvanized steel**  
**S280 GD - UNI EN 10346**

Per lo S.L.S. elemento appoggiato limitazione 1/300 della freccia - For S.L.S. supported element deflection 1/300 span

- rottura cilindrica / cylinder break  $f_{ck} = 25 \text{ N/mm}^2$
- soletta con calcestruzzo normale / composite floor with normal concrete

Carico permanente / permanent load  $p = 0,00 \text{ KN/m}^2$

(il carico permanente comprende il peso di pavimentazione, sottofondo e impianti fissi)

(the permanent load includes floor weight, subgrade and fixed equipments)

## TABELLE PORTATE - LOAD TABLE

Resistenza al taglio longitudinale: metodo di "interazione parziale" / Longitudinal shear resistance: method of partial interaction

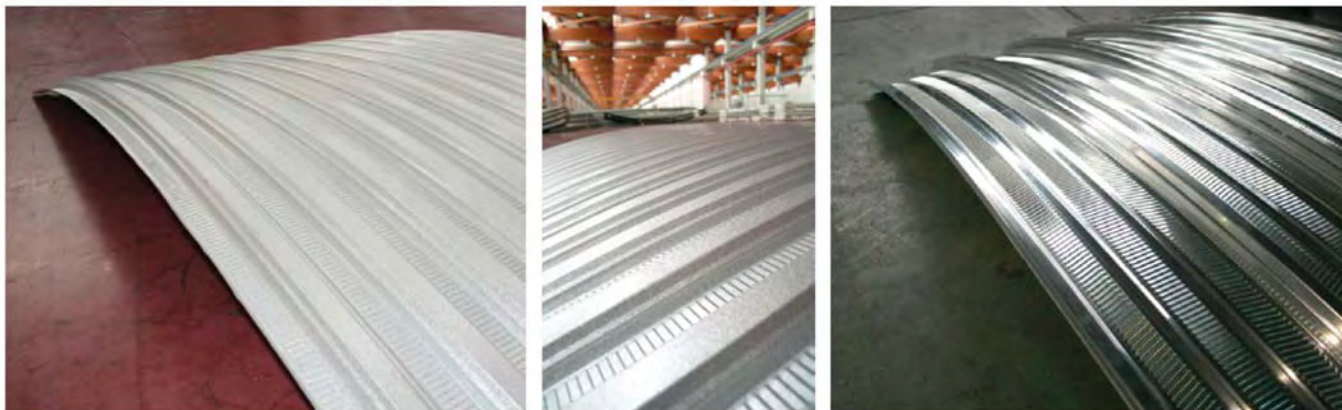
| H<br>Spessore<br>soletta /<br>Thickness<br>composite<br>floor | S<br>Spessore<br>lamiera /<br>Steel<br>thickness | Peso<br>soletta /<br>Weight<br>composite<br>floor | Luce massima in<br>fase di getto /<br>Max span during<br>concrete casting |       |       | Larghezza efficace appoggio: 50 mm<br>Working width support: 50 mm        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|---|--|---|---|-------|-------|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|   |  |   | 2 app   | 3 app | 4 app | $q = \text{carico di esercizio variabile} / \text{service variable load}$ |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|   |  |   | m   |       |       |   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|   |  |   |   |       |       | $l = \text{m}$  | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,25 | 5,50 | 5,75 | 6,00 |  |
| 120<br>mm   | 0,7  | 171,6   | 2,75  | 2,00  | 2,25  | $q = \text{Kg./m}^2$  | 1010 | 845  | 720  | 620  | 545  | 480  | 430  | 385  | 345  | 310  | 280  | 240  | 205  | 175  | 145  |      |      |      |      |  |
|   | 0,8  | 172,8   | 3,00  | 2,50  | 2,50  |   | 1005 | 840  | 715  | 620  | 540  | 475  | 425  | 380  | 340  | 305  | 280  | 255  | 230  | 195  | 165  |      |      |      |      |  |
| $\tau_{u,Rd}$<br>0,089<br>N/mm <sup>2</sup>                   | 1,0  | 175,2   | 3,25  | 3,00  | 3,25  |   | 990  | 825  | 705  | 605  | 530  | 470  | 415  | 370  | 335  | 300  | 270  | 245  | 225  | 205  | 185  |      |      |      |      |  |
|   | 1,2  | 177,6   | 3,50  | 3,50  | 3,75  |   | 975  | 815  | 690  | 595  | 520  | 460  | 405  | 365  | 325  | 295  | 265  | 240  | 220  | 200  | 180  |      |      |      |      |  |
|   | 1,5  | 181,6   | 3,75  | 4,75  | 4,50  |   | 955  | 795  | 675  | 580  | 505  | 445  | 395  | 350  | 315  | 280  | 255  | 230  | 205  | 185  | 170  |      |      |      |      |  |
| 130<br>mm   | 0,7  | 171,6   | 2,75  | 2,00  | 2,25  | $q = \text{Kg./m}^2$  | 1150 | 960  | 820  | 705  | 620  | 545  | 485  | 435  | 390  | 355  | 310  | 265  | 225  | 195  | 165  |      |      |      |      |  |
|   | 0,8  | 172,8   | 3,00  | 2,50  | 2,50  |   | 1145 | 955  | 810  | 700  | 615  | 540  | 480  | 430  | 385  | 350  | 315  | 285  | 250  | 215  | 185  |      |      |      |      |  |
| $\tau_{u,Rd}$<br>0,089<br>N/mm <sup>2</sup>                   | 1,0  | 175,2   | 3,25  | 3,00  | 3,25  |   | 1125 | 940  | 800  | 690  | 605  | 530  | 470  | 420  | 380  | 340  | 310  | 280  | 255  | 230  | 210  |      |      |      |      |  |
|   | 1,2  | 177,6   | 3,50  | 3,50  | 3,75  |   | 1110 | 925  | 785  | 680  | 595  | 520  | 465  | 415  | 370  | 335  | 300  | 275  | 250  | 225  | 205  |      |      |      |      |  |
|   | 1,5  | 181,6   | 3,75  | 4,75  | 4,50  |   | 1085 | 905  | 765  | 680  | 575  | 505  | 450  | 400  | 355  | 320  | 290  | 260  | 235  | 215  | 195  |      |      |      |      |  |
| 140<br>mm   | 0,7  | 171,6   | 2,75  | 2,00  | 2,25  | $q = \text{Kg./m}^2$  | 1290 | 1075 | 915  | 790  | 695  | 610  | 545  | 485  | 435  | 395  | 340  | 290  | 245  | 210  | 180  | 155  |      |      |      |  |
|   | 0,8  | 172,8   | 3,00  | 2,50  | 2,55  |   | 1280 | 1070 | 910  | 785  | 685  | 605  | 540  | 480  | 435  | 390  | 355  | 320  | 275  | 235  | 200  | 170  |      |      |      |  |
| $\tau_{u,Rd}$<br>0,089<br>N/mm <sup>2</sup>                   | 1,0  | 175,2   | 3,25  | 3,00  | 3,25  |   | 1265 | 1055 | 895  | 775  | 675  | 595  | 530  | 475  | 425  | 385  | 345  | 315  | 285  | 260  | 235  | 210  | 180  |      |      |  |
|   | 1,2  | 177,6   | 3,50  | 3,50  | 3,75  |   | 1245 | 1040 | 885  | 760  | 665  | 585  | 520  | 465  | 415  | 375  | 340  | 305  | 280  | 250  | 230  | 210  | 190  |      |      |  |
|   | 1,5  | 181,6   | 3,75  | 4,75  | 4,50  |   | 1220 | 1015 | 860  | 740  | 645  | 570  | 505  | 450  | 400  | 360  | 325  | 295  | 265  | 240  | 220  | 200  | 180  |      |      |  |
| 150<br>mm   | 0,7  | 171,6   | 2,75  | 2,00  | 2,25  | $q = \text{Kg./m}^2$  | 1425 | 1190 | 1015 | 875  | 765  | 675  | 600  | 540  | 485  | 430  | 365  | 315  | 270  | 230  | 195  | 165  |      |      |      |  |
|   | 0,8  | 172,8   | 3,00  | 2,50  | 2,55  |   | 1420 | 1185 | 1005 | 870  | 760  | 670  | 595  | 535  | 480  | 435  | 390  | 345  | 295  | 255  | 220  | 185  | 160  |      |      |  |
| $\tau_{u,Rd}$<br>0,089<br>N/mm <sup>2</sup>                   | 1,0  | 175,2   | 3,25  | 3,00  | 3,25  |   | 1400 | 1165 | 990  | 855  | 750  | 660  | 585  | 525  | 470  | 425  | 385  | 345  | 315  | 285  | 260  | 225  | 195  |      |      |  |
|   | 1,2  | 177,6   | 3,50  | 3,50  | 3,75  |   | 1380 | 1150 | 980  | 845  | 735  | 650  | 575  | 515  | 460  | 415  | 375  | 340  | 310  | 280  | 255  | 230  | 210  |      |      |  |
|   | 1,5  | 181,6   | 3,75  | 4,75  | 4,50  |   | 1350 | 1125 | 955  | 820  | 715  | 630  | 560  | 500  | 445  | 400  | 360  | 325  | 300  | 270  | 250  | 220  | 200  |      |      |  |

$\tau_{u,Rd}$  = determinato con Rapporto di Prova N° 312267: prova di carico su solaio in calcestruzzo secondo il D.M. 14/01/2008 e la norma UNI EN 1994-1-1:2005 e relazione tecnica N° 312267 - Valutazione della resistenza al taglio longitudinale di progetto di solette composte con lamiera grecate / Calculated with test report N° 312267: load test on concrete floor according to D.M. 14/01/2008 and norm UNI EN 1994-1-1:2005 and technical report N° 312267 - valuation of design longitudinal shear of concrete composite floor with trapezoidal steel sheet.

I valori delle tabelle sono stati determinati considerando coefficienti di combinazioni delle azioni variabili come previsto dalle NTC 08 per edifici di categoria D (ambiente ad uso commerciale). Il contenuto delle tabelle è da considerarsi con semplice valore indicativo. E' competenza del progettista calcolare per ogni singolo caso i relativi valori. / The table values have been calculated considering combination coefficient of variable actions as expected by NTC 08 for D category building (commercial use building). The table content is to be considered as indicative: it's competence of designer to calculate, for every single case, the relative values.

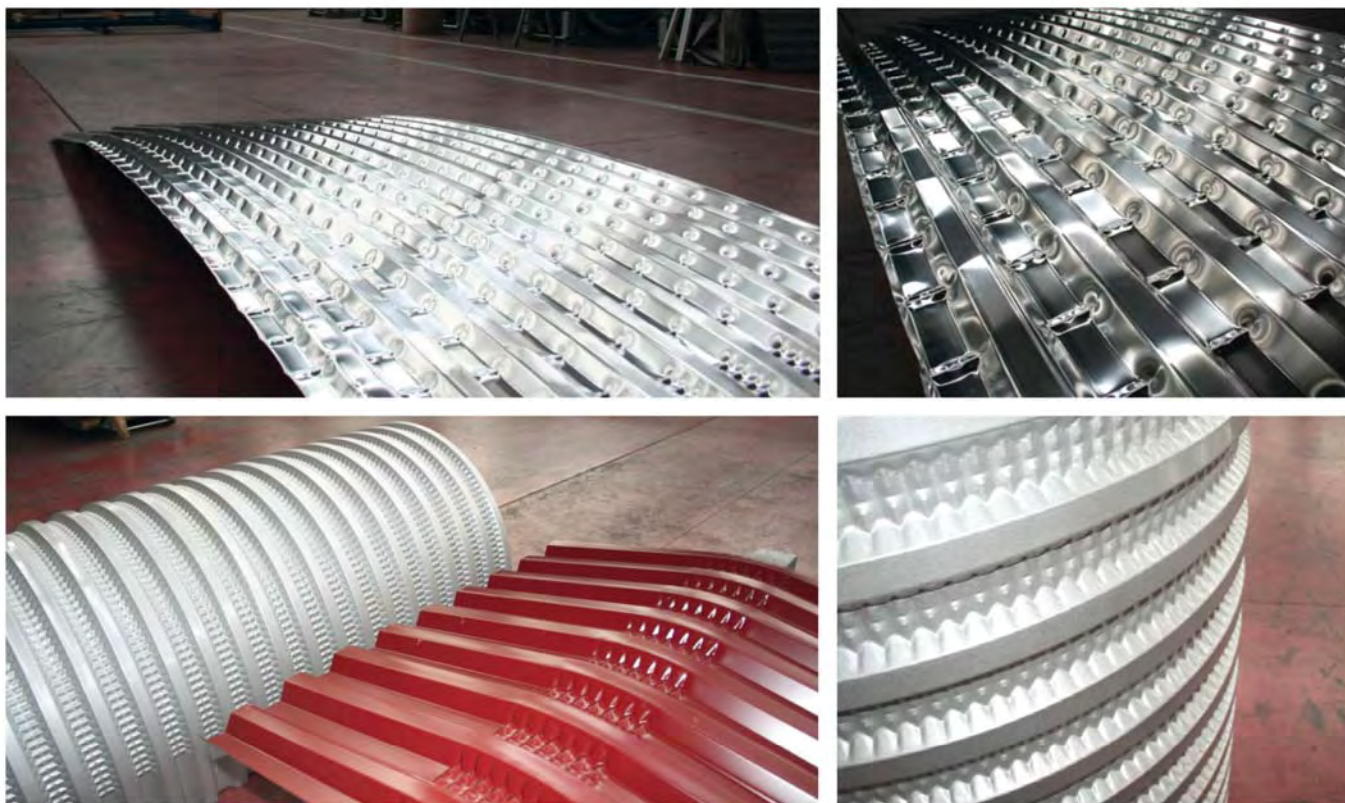
CALANDRATURA - ITP H28 / ITP H40

CALENDERING - ITP H28 / ITP H40



Lamiera curva per calandratura a raggio costante per la realizzazione di coperture curve  
Curved corrugated sheet by calendering with constant radius for the realization of curved roofs

TACCHETTATURA / NOTCHING  
ITP H20 / ITP H28 / ITP H40 / ITP MONO 28



Lamiera curva per tacchettatura per la realizzazione di shed, raccordi e profili adatti per tutte le applicazioni  
Curved corrugated sheet by notching for the realization of shed, connections and profiles suitable for all applications

DEFORMAZIONE CONTROLLATA  
ITPH20 / ITP H28



STRAIN CONTROLLED  
ITPH20 / ITP H28



Lamiera piegata a deformazione controllata con angolo 90° - 120° per la realizzazione di pezzi speciali per shed, colmi.  
Bended corrugated sheet having controlled strain with 90° - 120° angle for the realization of special pieces for shed, ridges.

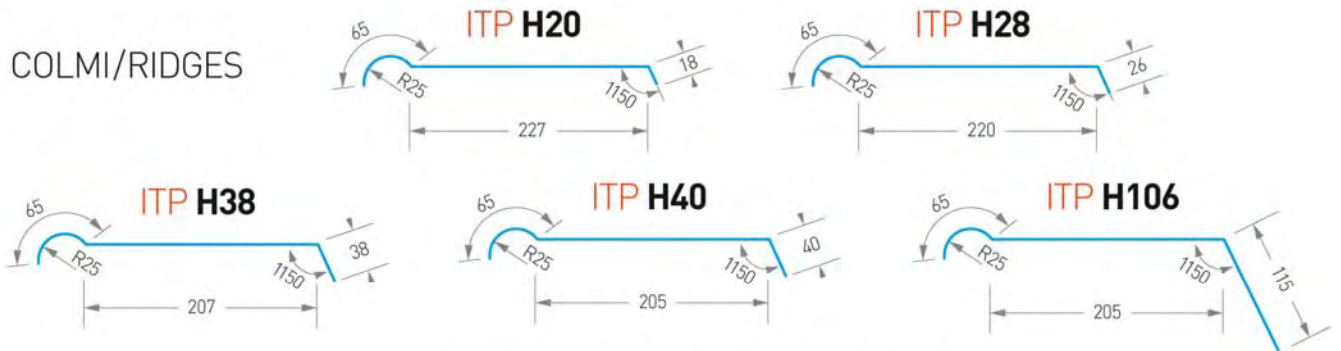
REALIZZAZIONE DI COPERTURA CURVA  
MEDIANTE TACCHETTATURA DI ITP MONO 28



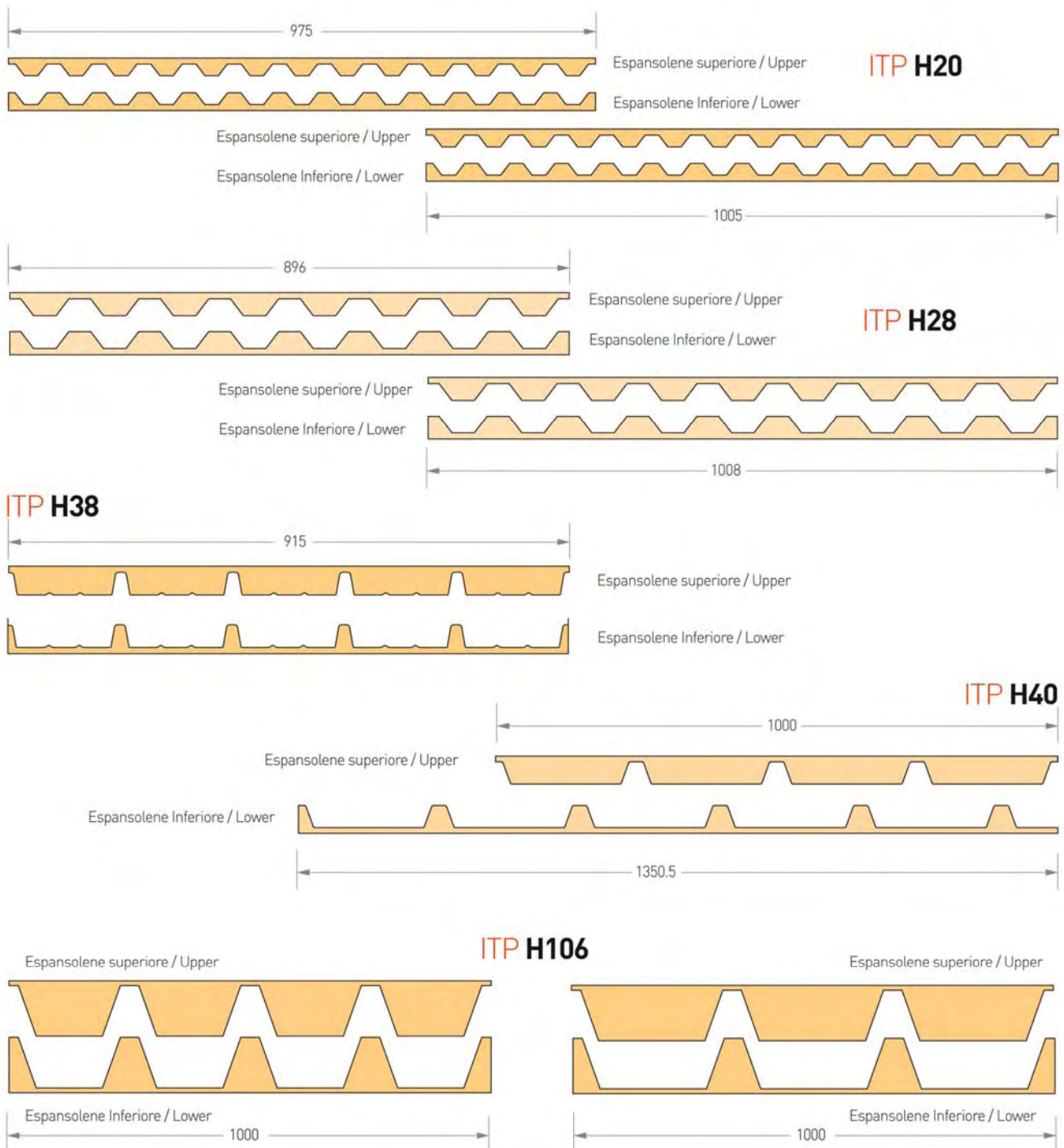
CONSTRUCTION OF CURVED ROOF  
BY NOTCHING OF ITP MONO28



COLMI/RIDGES



ESPANSOLENE / FILLER GASKET





**Condizioni generali di vendita AIPPEG 2013 delle lamiere grecate, dei pannelli metallici coibentati e degli accessori:**

**Allegato A:** Norme sulla movimentazione, manipolazione e stoccaggio

**Allegato B:** Standard qualitativi

**Allegato C:** Raccomandazioni per il montaggio

**Allegato D:** Istruzioni per l'ispezione e la manutenzione

**Comportamento al fuoco:**

Classe di Reazione al Fuoco Standard: A1 in accordo alla norma UNI EN 13501-1

**Supporti:**

**Acciaio zincato:** sistema SENDZIMIR, conforme alle norme UNI EN 10346 e UNI EN 10143.

A richiesta possono essere forniti supporti in acciaio con differenti grammature di zinco.

Il prodotto zincato, non preverniciato, è soggetto all'insorgere a fenomeni precoci di ossidazione.

**Acciaio preverniciato:**

- Sistema Base - Poliestere Standard
- Sistema Super - Poliestere Siliconato
- Sistema PVDF - Polivinilidenefluoruro
- Sistema HDX - Poliuretano + Poliammide
- Sistema Plastisol 200 µ - PVC
- Sistema Farm - Ambienti Interni Aggressivi
- Plastificato Alimentare - Solo Uso Interno

A richiesta possono essere fornite protezioni superficiali con particolari caratteristiche di resistenza e/o idonee al contatto con gli alimenti in accordo al D.M. del 21/03/73 ed alle direttive 82/711/CEE, 85/572/CEE, 90/128/CEE, 92/39/CEE.

**Acciaio naturale tipo Aluzinc:**

Lega Protettiva: Al 55 % - Zn 43,4 % - Si 1,6 %

**Acciaio naturale tipo Magnelis:**

Lega Protettiva: Zn 93,5 % - Al 3,5 % - Mg 3,0 %

**Alluminio in lega:**

Conforme alle norme EN 485-2 e EN 1396 naturale o preverniciato secondo i sistemi precedentemente descritti.

**2013 AIPPEG general selling conditions for corrugated sheets, insulated panels and accessories:**

**Enclosures A:** Rules concerning moving, handling, and stocking

**Enclosures B:** Quality standards

**Enclosures C:** Advices concerning the assembling

**Enclosures D:** Instructions for inspections and maintenance

**Fire reaction :**

Standard fire reaction class: A1 according to the norm UNI EN 13501-1

**Supports:**

**Galvanized steel:** SENDZIMIR system, in accordance with UNI EN 10346 and UNI EN 10143.

Upon demand we can supply you supports having different zinc coatings.

The galvanized product, not pre-painted, is subject to early phenomena of oxidation.

**Pre-painted steel:**

- Base System - Standard Polyester
- Super System - Polyester base Silicon
- PVDF System - Polyvinylidene difluoride
- HDX System - Polyurethane paint + Polyamide
- Plastisol 200 µ - PVC
- Farm System - Internal aggressive environment
- Pvc Coated for alimentary use - Only Internal Use

On request surface protections can be supplied with particular characteristics of resistance and/or suitable for contact with food products in accordance with the Law of 21/03/73 and EU directives 82/711/EEC, 85/572/EEC, 90/128/EEC and 92/39/EEC.

**Natural steel type Aluzinc:**

Protective alloy: Al 55 % - Zn 43,4 % - Si 1,6 %

**Natural steel type Magnelis:**

Protective alloy: Zn 93,5 % - Al 3,5 % - Mg 3,0 %

**Aluminum alloy :**

According to EN 485-2 and EN 1396 Standards, smooth or embossed, natural or pre-painted according to the previously described system.

**Allgemeine Verkaufsbedingungen AIPPEG 2013 für Trapezbleche, Isolierpaneele und Zubehör:**

**Anhang A:** Regeln für Handhabung, Bewegung und Lagerung

**Anhang B:** Qualitätsstandards

**Anhang C:** Montageempfehlungen

**Anhang D:** Anleitungen für Inspektion und Instandhaltung

**Verhalten dem Feuer gegenüber:**

Standard Brandklasse-Reaktionsklasse: A1 in Übereinstimmung mit der Norm UNI EN 13501-1.

**Trägermaterial:**

**Verzinktes Blech:** System SENDZIMIR, gemäß Normen UNI EN 10346 und UNI EN 10143.

Auf Anfrage können Sandwichpaneele mit Stahlträger mit unterschiedlichen Zink Verkleidungen geliefert werden.

Das nicht vorlackierte verzinkte Produkt, untersteht dem Auftreten von vorzeitigen Oxydation Phänomene.

**Vorlackiertes Stahl:**

- Basis-System - Standard Polyester
- Super System - Silikon Polyester
- PVDF System - Polivinylidenefluoruro
- HDX System - Polyurethan + Polyamid
- Plastisol 200 µ - PVC
- Farm System - Aggressive Innenräume
- Nahrungsmittel kunststoffbeschichtet - Nur für Innenraum-Anwendungen

Auf Wunsch können Schutzanstriche mit besonderen Eigenschaften in Bezug auf Festigkeit und/oder lebensmittele geeignet gemäß Min. VO vom 21.03.73 und den weiteren EU-Richtlinien 82/711/CEE, 85/572/CEE, 90/128/CEE, 92/39/CEE geliefert werden.

**Natural Stahl wie Aluzinc:**

Schutzlegierung: Al 55 % - Zn 43,4 % - Si 1,6 %

**Natural Stahl wie Magnelis:**

Schutzlegierung: Zn 93,5 % - Al 3,5 % - Mg: 3,0 %

**Aluminiumlegierung:**

Gemäß EN 485-2 und EN 1396, glatt oder gaurfirt, Natur oder vorlackiert nach den vorstehend beschriebenen Systemen.

**Conditions Générales de Vente AIPPEG 2013 des tôles nervurées, des panneaux sandwich isolantes et des accessoires:**

**Annexe A:** Normes pour la mouvementassions, la manipulation et le stockage

**Annexe B:** Standards qualitatifs

**Annexe C:** Prescriptions techniques pour l'assemblage

**Annexe D:** Prescriptions pour l'inspections et la maintenance

**Comportement au feu:**

Classe de Réaction au Feu Standard: A1 selon la norme UNI EN 13501-1.

**Supports:**

**Acier galvanisé:** système SENDZIMIR, conforme aux normes UNI EN 10346 et UNI EN 10143.

Sur demande on peut produire panneaux sandwich en acier avec différent poids de zinc.

Le produit galvanisé, pas prelaqué, est sujet à tôt phénomène d'oxydation.

**Acier Prelaqué:**

- Système Base: Standard Polyester
- Système Super: Polyester Siliconat
- Système PVDF: Polivinylidenefluorure
- Système HDX: Polyuréthane et Polyamide
- Plastisol 200 µm - PVC
- Système Farm - Pour les environnements intérieurs agressives
- Plastifié pour l'industrie alimentaire - seulement à usage interne

Sur demande nous pouvons fournir des protections superficielles avec des caractéristiques particulières de résistance et/ou adaptées au contact avec les aliments conformément au D.M. du 21/03/73 et aux directives 82/711/CEE, 85/572/CEE, 90/128/CEE, 92/39/CEE.

**Acier Naturel type Aluzinc:**

Alliage Protective: Al 55 % - Zn 43,4 % - Si 1,6 %

**Acier Naturel type Magnelis:**

Alliage Protective: Zn 93,5 % - Al 3,5 % - Mg 3,0 %

**Alliage d'aluminium:**

Conforme aux normes EN 485-2 et EN 1396, lisse ou gaurfirt, naturel ou prelaqué avec les systèmes décrits plus haut.



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11/2014