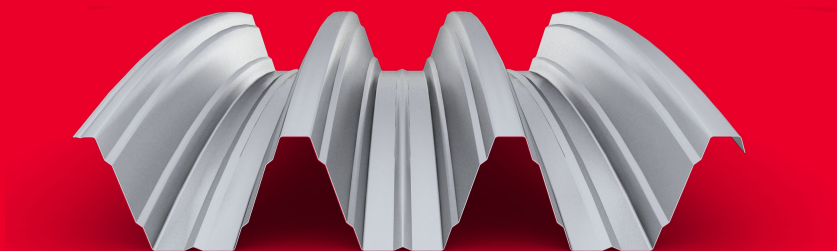


INCO 155.3 Curved[®]

CURVED ROOFING



- > Curved roofing
- > Cover width: 840 mm
- > Height: 155 mm
- > Pitch: 280 mm

Description

The INCO 155.3 profile is used as a curved support profile for simple or multi-layer self-supporting curved roofs of industrial warehouses, shopping centers, sports facilities, among others. This profile offers excellent resistance for different metal enclosure solutions, reaching spans up to 22 meters.

Manufacturing conditions

- > Min / Max Manufacturing Length: 8 / 23 m
- > Thickness Range:
0,60 | 0,70 | 0,80 | 1,00 | 1,20 | 1,50 mm
- > Minimum Order: 250 m²
- > Package Weight: 1.500 - 4.000 kg
- > Color: White. Others on request
- > Color Position: A

Transport conditions

Thickness (mm)	Surface* (m ²)
0,70	1.100
0,80	1.200
1,00	1.200
1,20	900
1,50	800

* special transport for spans greater than 13 m

Material

- > Steel grade EN 10346
- > Organic coating EN 10169
- > Dimensional tolerances EN 10143
- > Fire reaction EN 14782

Finishing

- > Galvanized steel (Z) and Magnelis (ZM)
- > Standard painted steel (15-25 µm)
- > High-performance steel (35-200 µm)
- > Perforated for acoustic solutions

Complementary articles

- > Cellular polycarbonate sheets
- > Tight Joint Upper/ Lower
- > Trimming

Tables information

- > The values in the tables have been obtained by experimental tests and computational analyses
- > Modifying the diameter or separation of the tie rods implies a variation in the load capacity
- > These values should be compared with factored load combinations on the horizontal projection
- > The self-weight of the profile is included
- > These values are an approximation of resistance and require a calculation report for a detailed analysis
- > Example: Thickness 1,20 mm, distance between supports 20,00 m, maximum load ULS = 221 kg/m², maximum load SLS = 137 kg/m², tie rod diameter 20 mm and spacing between tie rods 2,00 mm

Calculation information

- > Calculation hypothesis:
ULS:
 $Q = 1,35 \times (PP + CP) + 1,50 \times SU$
 $Q = 1,35 \times (PP + CP) + 1,50 \times SV + 0,75 \times SN$
 $Q = 1,35 \times (PP + CP) + 1,50 \times SN + 0,90 \times SV$
SLS:
 $Q = 1,00 \times (PP + CP) + 1,00 \times SU$
 $Q = 1,00 \times (PP + CP) + 1,00 \times SV + 0,50 \times SN$
 $Q = 1,00 \times (PP + CP) + 1,00 \times SN + 0,60 \times SV$
PP: Self weight | CP: Permanent load SU: Live load | SN: Wind load

Related documents

- > General catalog
- > Technical datasheet
- > Technical manual
- > Declaration of Performance (DDP / DOP)

Start designing your curved roofing



Find on our website all technical documentation what you need to start design your project.

www.incoperfil.com/solution



Use forms for request a specific report for your project.

www.incoperfil.com/cas

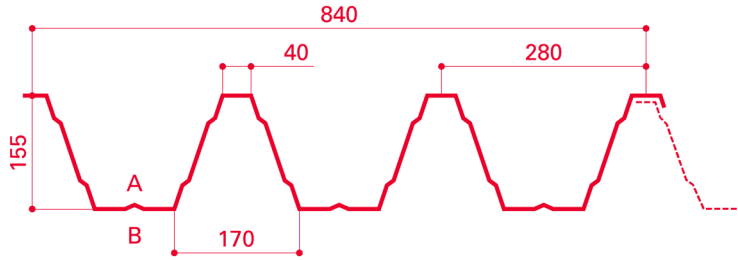


Request support from our technical department for design and select the system more appropriate.

dpto_tecnico@incoperfil.com

INCO 155.3 Curved[®]

CURVED ROOFING



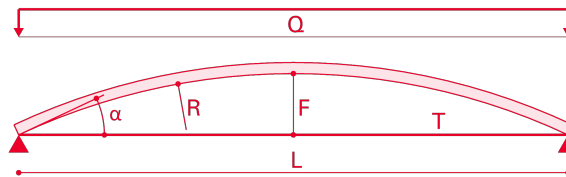
Material: Steel
Yield strength (N/mm²): 280
Deflection (mm): L/250

Dimensions in mm

Profile features

Thickness (mm)	Weight (daN/m ²)	Gross area (mm ² /m)	Gross inertia (mm ⁴ /mm)	Eff. inertia + (mm ⁴ /mm)	Eff. inertia - (mm ⁴ /mm)	W + (mm ³ /m)	W - (mm ³ /m)
0,70	9,81	1.250	3.350.623	3.416.831	3.550.421	33.093	40.199
0,80	11,21	1.429	3.829.309	3.888.877	4.060.888	41.482	49.269
1,00	14,01	1.786	4.786.712	4.832.969	5.081.820	58.260	67.410
1,20	16,82	2.143	5.744.164	5.777.061	6.102.753	75.037	85.550
1,50	21,02	2.679	7.180.459	7.193.260	7.628.400	93.796	106.938

Maximum load (daN/m²)



Thickness (mm)	Distance between supports, L (m)											
	12,00	13,00	14,00	15,00	16,00	17,00	18,00	19,00	20,00	21,00	22,00	
0,70	208 (194)	194 (182)	178 (162)									
	16 2,00	16 2,00	16 2,00									
0,80	258 (242)	235 (210)	219 (187)	201 (165)								
	16 2,00	16 2,00	16 2,00	16 2,00								
1,00			288 (217)	272 (197)	258 (177)	229 (175)	208 (152)					
			16 2,00	16 2,00	16 2,00	16 2,00	16 2,00					
1,20					324 (260)	293 (215)	276 (187)	249 (159)	221 (137)	194 (120)		
					20 2,00	20 2,00	20 2,00	20 2,00	20 2,00	20 1,66		
1,50							402 (277)	368 (240)	317 (202)	272 (172)	229 (147)	
							24 2,00	24 2,00	24 2,00	24 2,00	24 2,00	
Radius, R (mm)	14.197	15.380	16.563	17.747	18.930	21.403	23.820	26.389	29.099	31.928	34.849	
Height, F (mm)	1.330	1.441	1.552	1.663	1.774	1.760	1.766	1.769	1.772	1.776	1.782	
Angle, α (°)	25,0	25,0	25,0	25,0	25,0	23,4	22,2	21,1	20,1	19,2	18,4	

Q ₁	(Q ₂)	Q ₁ : Maximum downward load (daN/m ²)	DT: Tie bar diameter (mm)
DT	ST	Q ₂ : Maximum upward load (daN/m ²)	ST: Spacing between tie bars (m)