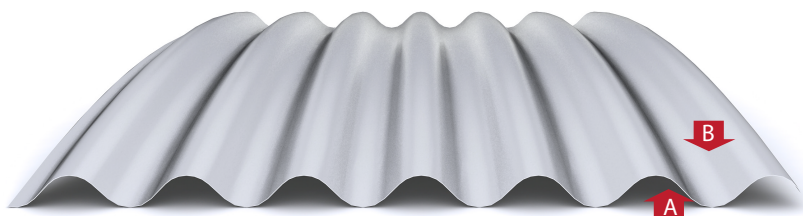


INCO 44.6 Curved®

SELF-SUPPORTING ROOFING



Product



Perforation



Installation

Working Length: 930 mm
Height Profile: 44 mm

Description

INCO 44.6 metallic roof for use as free-standing roof for spans of up to 8 metres. A light roof which eliminates the need for a support structure. Quicker assembly, reduced costs, structural savings and improved aesthetics.

This profile is available galvanized and in different primed colours. It can also be curved. Perforated steel can be used for applications requiring better acoustics.

Applications

- Industrial: hangars, plants, water tanks.
- Agricultural: stables, sheds.
- Commercial: open spaces, sport, walled.
- Public: schools, gymnasium, pavilions.

Complementary Articles

- Tight Joint INCO 44.6 Upper/ Lower
- Trimming

Related Documents

- General Catalogue
- Technical Sheet
- Technical Dossier
- Declaration of Performance (DDP / DOP)

Material

Steel	EN 10346
Organic Coating	EN 10169
Dimensional Tolerance	EN 10346
Reaction to Fire	EN 14782

Finishing

- Galvanized
- Standard Organic Coating / High Organic Coating
- Specialty Materials: Corten Steel and Magnelis
- Perforated for Acoustic Solutions

Manufacturing Conditions

Manufacturing Length	Min. / Max. 2.000 / 14.000 mm
Thickness Range	0,60 0,70 0,75 0,80 1,00 1,20 mm
Minimal Order	250 m ²
Package Weight	1.500-2.000 kg
Colour	White RAL 9003. Other on demand
Colour Position	A

Transport Conditions

Thickness(mm)	Surface* (m ²)	Thickness(mm)	Surface* (m ²)
0,60	4.135	0,80	3.100
0,70	3.545	1,00	3.480
0,75	3.280	1,20	2.060

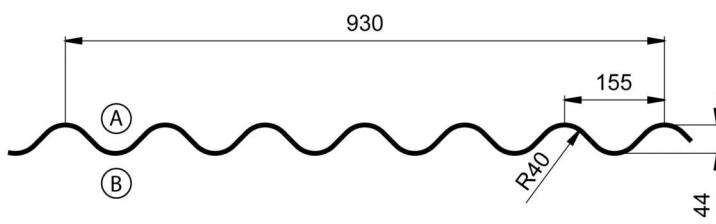
* estimated area depending on cutting length

Rev. 2021.11

INCO 44.6 Ondulado[®]

SELF-SUPPORTING ROOF ($f_y = 280 \text{ N/mm}^2$)

Profile Dimensions



Useful Width: 930 mm

Dimensions in mm

Material Characteristics

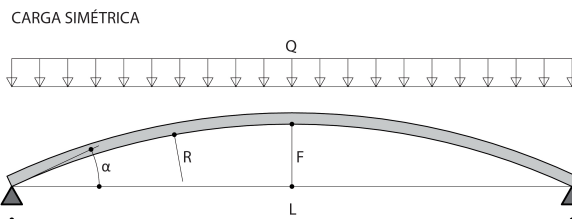
Material	Steel
Elastic limit (N/mm^2)	280
Elasticity modulus (N/mm^2)	2.100.000
Density (Kg/m^3)	7.850

Effective Values

Thickness (mm)	Weight (daN/m^2)	Gross Area (mm^2/m)	M. Inertia (mm^4/m)			M. Resistant (mm^3/m)	
			Gross	Effective +	Effective -	Effective +	Effective -
0,60	6,33	806	172.792	172.792	172.792	7.737	7.737
0,70	7,38	941	201.603	201.603	201.603	9.011	9.011
0,75	7,91	1.008	216.010	216.010	216.010	9.647	9.647
0,80	8,44	1.075	230.419	230.419	230.419	10.281	10.281

Usage Table

Maximum load (daN/m^2)



Thickness (mm)	Span between supports (m)													
	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4	4.2
0,60	285	248	223	206	194	186	180	170	161	154	149	144	140	136
0,70	374	325	292	270	254	238	219	205	195	186	179	174	169	164
0,75	418	363	327	302	284	259	239	224	212	203	196	189	184	179
0,80	464	403	362	335	311	281	259	242	230	220	212	205	199	194
Radius (mm)	1.893	2.130	2.366	2.603	2.839	3.076	3.313	3.549	3.786	4.023	4.259	4.496	4.732	4.969
Deflection (m)	177	200	222	244	266	288	310	333	355	377	399	421	443	466
Angle (°)	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0

Thickness (mm)	Span between supports (m)												
	4.6	4.8	5	5.2	5.4	5.6	5.8	6	6.2	6.4	6.6	6.8	7
0,60	131	129	128	127	127	124	119	113					
0,70	158	156	155	154	153	153	151	147	139	131	123	117	110
0,75	172	170	169	168	167	166	165	161	155	146	138	131	124
0,80	187	184	183	182	181	180	178	174	168	161	153	145	139
Radius (mm)	5.442	5.679	5.916	6.152	6.389	6.625	6.862	7.099	7.335	7.572	7.808	8.045	8.282
Deflection (m)	510	532	554	576	599	621	643	665	687	709	732	754	776
Angle (°)	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0

The ELU resistance values at distributed load that appear in the table have been obtained by exploiting the results of experimental tests. For the design of the structure, the maximum horizontal deformation of the support will be limited to 3 mm (pressure) and 30 mm (suction).

Calculation Legend

v21.10.08

$ELU_{up}: Q = 0,80 * (PP + CP) - 1,50 * \text{Wind}$

PP: Own Weight ; CP: Permanent Load

ELU: $Q = 1,35 * (PP + CP) + 1,50 * \text{Use}$

$Q = 1,35 * (PP + CP) + 1,50 * \text{Wind} + 0,75 * \text{Snow}$

$Q = 1,35 * (PP + CP) + 1,50 * \text{Snow} + 0,90 * \text{Wind}$

ELS: $Q = 1,00 * (PP + CP) + 1,00 * \text{Live Load}$

$Q = 1,00 * (PP + CP) + 1,00 * \text{Wind} + 0,50 * \text{Snow}$

$Q = 1,00 * (PP + CP) + 1,00 * \text{Snow} + 0,60 * \text{Wind}$

Reglamentation:

UNE-EN 1993-1-3: Eurocode 3 Part 1-3

Declaration of Performance: www.incoperfil.com/dop

Calculation report request: www.incoperfil.com/cyd



EN 14782:2006