

Frequency® range

Frequency® 13.18T

Corrugated roof profile



ArcelorMittal



Length of profile:

Minimum 1800 mm / Maximum 11,000 mm

2 overlapping corrugations are obligatory, with or without Haircotherm®

* With Haircotherm®: the overlapping corrugation at the end is not covered with a regulator

Minimum slope 15% or 25% depending on the roof configuration



Experimental features

According to Socotec report no. DM 7493

				Thickness (mm)					
				0.63	0.75	0.88	1.00		
		Surface weight (kg/m²)		6.43	7.65	8.81	10.01		
Effect of downward loads	Moment of inertia (cm⁴/lm)	Single span	I2	3.26	4.36	5.12	5.81		
		Two equal spans	I3	2.39	3.17	3.72	4.23		
		Continuity	Im	2.83	3.76	4.41	5.01		
	Moment of flexion (m.daN/lm)	By the span	Elastic system	Md2T	116.85	182.25	213.84	243.00	
			Elasto-plastic system	Md3T	166.33	208.91	245.12	278.55	
		On support	Md3A	127.91	167.13	196.10	222.84		
Under concentrated load		Mc	96.43	110.32	129.44	147.09			
Reaction at the support (daN/lm)		Rd	576.08	652.94	766.12	870.59			
Effect of upward loads	Complete fastening at top of rib	Moment of flexion (m.daN/lm)	By the span	Elastic system	Ma2T	152.64	202.82	237.98	270.43
				Elasto-plastic system	Ma3T	180.44	197.83	232.12	263.77
		On support		Ma3A	75.86	125.00	146.67	166.67	
		Lift-off force on support (daN/lm)		Sa	274.24	440.69	517.08	587.59	

Loads table under the climatic load effect for equal spans

Frequency® 13.18T	Unweighted operating loads (daN/m²)	2 supports				3 supports				4 supports				
		0.63	0.75	0.88	1.00	0.63	0.75	0.88	1.00	0.63	0.75	0.88	1.00	
Downward loads	45	1.80	1.95	2.00	2.10	2.20	2.40	2.50	2.60	2.10	2.30	2.40	2.50	
	55	1.70	1.85	1.95	2.00	2.05	2.25	2.35	2.45	2.00	2.20	2.30	2.35	
	65	1.60	1.75	1.85	1.95	1.95	2.15	2.25	2.35	1.90	2.10	2.20	2.25	
	75	1.55	1.70	1.75	1.85	1.90	2.05	2.15	2.25	1.80	2.00	2.10	2.15	
	90	1.45	1.60	1.65	1.75	1.75	1.95	1.05	2.10	1.70	1.90	2.00	2.05	
	100	1.40	1.55	1.60	1.70	1.70	1.90	1.95	2.05	1.65	1.80	1.90	2.00	
	125	1.30	1.45	1.50	1.55	1.60	1.75	1.85	1.90	1.55	1.70	1.80	1.85	
	150	1.25	1.35	1.45	1.50	1.50	1.65	1.75	1.81	1.45	1.60	1.70	1.76	
	175	1.15	1.30	1.35	1.40	1.45	1.55	1.65	1.70	1.40	1.55	1.60	1.65	
	200	1.10	1.25	1.30	1.35	1.35	1.50	1.60	1.65	1.35	1.45	1.55	1.60	
Upward loads	Complete fastening at top of rib	75	1.80	1.95	2.00	2.10	2.20	2.40	2.50	2.60	2.10	2.30	2.40	2.50
		100	1.80	1.95	2.00	2.10	1.95	2.40	2.50	2.60	2.10	2.30	2.40	2.50
		125	1.50	1.95	2.00	2.10	1.55	2.40	2.50	2.60	1.65	2.30	2.40	2.50
		150	1.25	1.95	2.00	2.10	1.25	2.05	2.40	2.60	1.40	2.25	2.40	2.50
		200	0.95	1.50	1.80	2.05	0.95	1.50	1.80	2.05	1.05	1.65	1.95	2.25