

TECHNICAL DATA SHEET

MONOWALL



DESCRIPTION	Self-supporting metal panel, insulated with polyisocyanurate foam for use as wall cladding. The panels are manufactured with two metal sheets slightly corrugated, in prepainted galvanized/zinc-aluminium. The thermal insulation of polyisocyanurate foam may have a thickness from 40mm to 80mm (Subsequently up to 200mm).	
GEOMETRICAL FEATURES	<p>Length: upon customer request, with a max length of 13,5m Cover width: 1000m Thickness: 40, 60, 80, 100, 120, 140mm up to 200mm</p>	
SPECIFICATION	The metal insulated wall / cladding shall be Monowall, comprising of two outer skins from pre-painted galvanised / zinc-aluminium steel and a polyisocyanurate core, with a net cover width of 1000mm. Monowall shall be obtained from The Insulation Company SA (010)495 0000	
DENSITY	35kg/m ³ - 40kg/m ³	
WEIGHT	40mm: 8,32kg/m ² 60mm: 9,12kg/m ² 80mm: 9,92kg/m ² 100mm: 10,72kg/m ² 120mm: 11,52kg/m ² *metal skin thickness of 0.4/0.4mm	
THERMAL PERFORMANCE	<u>R-VALUE</u> 40mm: 1.78 60mm: 2.78 80mm: 3.85 100mm: 4.76 120mm: 5.88	<u>U-VALUE</u> 40mm: 0.56 60mm: 0.36 80mm: 0.26 100mm: 0.21 120mm: 0.17

TECHNICAL DATA SHEET

MONOWALL



FIRE RATING

SA PIR Rating: SANS428 B/B1/2
 International PIR rating: FM4880, 4881
 AUS Bush attack: BAL-40, 200mm - BAL-FZ
 Fire B; Smoke S1; Drops d0


LOAD CAPACITY

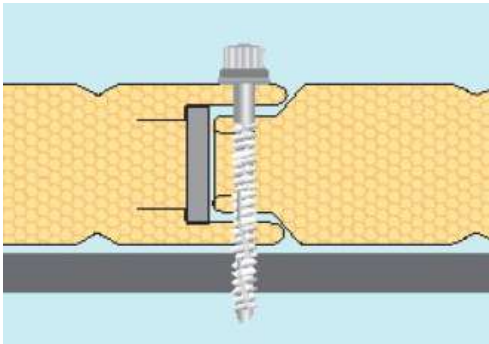
The following values (in daN/m) are for uniformly distributed loads, for panels made from sheet steel minimum quality S250GD and have been calculated in accordance with standard product EN 14509:2023.
 The width of the support/frame is considered 100mm.
 The tables do not consider the effects due to the different temperatures between the internal and external metal sheets, as per different climatic conditions.
 It is the responsibility of the design engineer to check the fasteners according to the design loads.

<div> <div>S</div> <div>support width = 100 mm</div> <div>steel thickness 0,4+0,4</div> <div> </div> </div>										
mm	l = m	1,5	2	2,5	3	3,5	4	4,5	5	5,5
25	p = daN/m	180	<u>115</u>	<u>70</u>						
30		220	<u>155</u>	<u>95</u>	<u>65</u>					
35		260	195	<u>125</u>	<u>85</u>	<u>55</u>				
40		300	225	<u>155</u>	<u>105</u>	<u>75</u>	<u>50</u>			
50		375	280	<u>220</u>	<u>150</u>	<u>105</u>	<u>80</u>	<u>60</u>		
60		495	340	270	<u>200</u>	<u>145</u>	<u>105</u>	<u>80</u>	<u>60</u>	<u>50</u>
80		610	455	365	305	230	<u>175</u>	<u>135</u>	<u>105</u>	<u>80</u>
100		765	570	455	380	285	220	175	140	115
120		920	690	550	460	345	265	210	170	140

<div> <div>S</div> <div>support width = 100 mm</div> <div>steel thickness 0,4+0,4</div> <div> </div> </div>										
mm	l = m	1,5	2	2,5	3	3,5	4	4,5	5	5,5
25	p = daN/m	155	115	90	65					
30		190	140	105	75	55				
35		225	165	120	85	65	50			
40		160	190	130	95	70	55			
50		330	230	155	115	85	65	55		
60		405	260	175	130	100	80	65	50	
80		490	315	220	160	125	100	80	65	55
100		550	360	255	190	145	115	95	80	65
120		590	410	290	215	170	135	110	90	80

NB: the values in bold and underlined refer to loads limited by deflection L/200

TECHNICAL DATA SHEET	 THE INSULATION COMPANY Partnered by  meTecno
MONOWALL	

JOINT	<p>The joint is a joining male and female with a continuous sealing strip inserted during manufacture</p> 
FIXING	<p>Fixing is achieved using screws with a \varnothing 6,3mm</p>
MAINTENANCE	<p>All walls including metal insulated panels, require periodical maintenance. It is recommended that a thorough inspection of the roof is carried out at least yearly, in order to check the condition.</p> <p>It is also recommended in order to maintain the aesthetic characteristics and to prolong the efficiency of the protective coating, a regular cleaning of the panels with special attention to areas not subjected to the washing action of rain water where it can form concentrations of substances for metal support.</p> <p>It is necessary to proceed with an immediate extraordinary intervention, when the inspections have discovered a problem, in order to restore the initial conditions.</p>