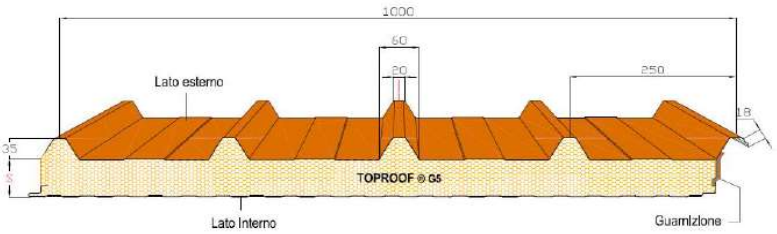
TECHNICAL DATA SHEET

TOPROOF G5

THE INSULATION COMPANY
Partnered by meTecno

DESCRIPTION	Self-supporting metal panel, insulated with polyisocyanurate foam, for pitched roofs with a minimum slope of 7%. The external top skin of the panel is made of metal trapezoidal steel, galvanized/zinc-aluminium and pre-painted. The thermal insulation on polyisocyanurate foam may have a thickness from 40mm to 80mm. The internal skin is made of steel sheet galvanized/zinc-aluminium and pre-painted (subsequently up to 200mm).
GEOMETRICAL FEATURES	 Length: upon customer request, with a max length of 13,5m Cover width: 1000m Thickness: 40, 60, 80, 100, 120, 140mm up to 200mm Skin thickness: No. of ribs on top skin: 5 Rib height: 35mm Rib centres: 250mm
SPECIFICATION	The metal insulated roof shall be Toproof G5, comprising of two outer skins from pre-painted galvanised / zinc-aluminium steel and a polyisocyanurate core. The top skin shall consist of 5 trapezoidal ribs at 250mm centres providing a net cover width of 1000mm. The rib height shall be 35mm. Toproof G5 shall be obtained from The Insulation Company SA (010)495 0000
DENSITY	35kg/m³ - 40kg/m³
WEIGHT	40mm: 8,92kg/m² 60mm: 9,68kg/m² 80mm: 10,44kg/m² 100mm: 11.20kg/m² 120mm: 11.96kg/m² 150mm: 13.10kg/m² 180mm: 14.24kg/m² 200mm: 15.00kg/m² 250mm: 16.90kg/m² *metal skin thickness of 0.4/0.4mm

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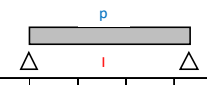
THERMAL PERFORMANCE	R-VALUE	U-VALUE
	40mm: 1.96	40mm: 0.51
	60mm: 2.94	60mm: 0.34
	80mm: 4.00	80mm: 0.25
	100mm: 5.00	100mm: 0.21
	120mm: 5.88	120mm: 0.17
	150mm: 7.14	150mm: 0.14
	180mm: 8.33	180mm: 0.12
	200mm: 10	200mm: 0.10
	250mm: 12.5	250mm: 0.08

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.
The effects of a long period (creeping) are not considered.
It is the responsibility of the design engineer to check the fasteners according to the design loads.



S Total thickness mm	L=m	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5	3,75	4	4,25	4,5	4,75	5
30	P = daN/m2	240	190	155	125	95	75	60								
40		290	235	195	160	125	100	80	65	55						
50		335	280	235	200	160	130	105	85	70	60	50				
60		385	320	275	235	195	160	130	110	90	75	65	55			
80		480	415	360	310	270	225	190	160	135	115	100	85	75	65	55
100		580	505	440	390	345	290	250	215	185	160	140	120	105	90	80

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

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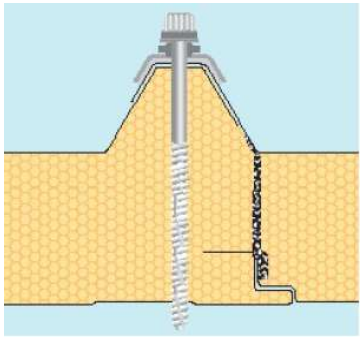
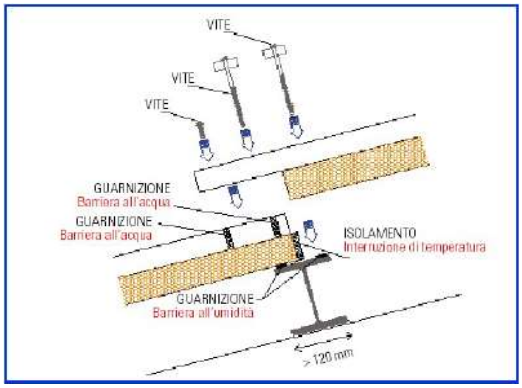
JOINT	The lap joint is supplied with a continous sealing strip inserted during manufacture. The particular moulding of the joint has been especially designed in order to avoid water infiltration 
FIXING	Fixing is achieved using screws with a Ø 6,3mm
ROOF ASSEMBLY	In order to assure the right water outflow as well as to avoid oxidation on metal supports, the panels must be assmbled with a slope not lower than 7%. For pitched roofs made with more than one panel in longitudinal direction, it is necessary to overlap the panels as below. The iverlap length must be sufficient to avoid water infiltration. 
MAINTENANCE	All roofs 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. A regular cleaning of the roof with particular attention to areas not subjected to the washing action of the rainwater, where it can form concentrations of corrosive substances for the metal support, is also recommended in order to maintain the aesthetic characteristics and physical properties of the elements and to prolong the efficiency of the protective coating. It is necessary to proceed with an immediate extraordinary intervention, when the inspections have discovered a problem, in order to restore the initial conditions.