

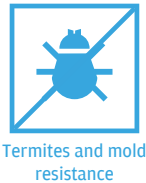
THE VANTEM PANEL

Vantem Panels simplify construction, reducing costs and time. They are highly structural, capable of supporting high compression, flexural, and shear loads and may be used to build multi-story structures without additional steel or concrete reinforcement.

The panel facings are our proprietary Vantem Board, a structural cementitious board that is resistant to fire, moisture, insects and mold. The panel core is a highly effective insulation layer, making our panels perfect for building energy-efficient Net Zero structures.



Advantages of Vantem



GENERAL FEATURES			
Width	Lengths	Thickness	Weight per m2 (average)
1220 mm	2440-3600 mm	80-300 mm according insulation needs	with 8mm board = 22.8 kg/m2 with 12mm board = 33.5 Kg/m2
FLEXURAL STRENGTH TESTED AS WALL (TRANSVERSE LOAD) (1)			
Panel Type	Test Span		Maximum Load to Failure
Panel with 12 mm board 1220x2440x114 mm	2440 mm		1010 Kg/m2
Panel with 12 mm board 1220x3600x114 mm	3600 mm		464 Kg/m2
Panel with 12 mm board 1220x2440x260 mm	2440 mm		1299 Kg/m2
Panel with 12 mm board 1220x3600x260 mm	3600 mm		776 Kg/m2
FLEXURAL STRENGTH TESTED AS ROOF (TRANSVERSE LOAD) (2)			
Panel Type	Test Span		Maximum Load to Failure
Panel with 12 mm board 1220x2440x114 mm	2364 mm		908 Kg/m2
Panel with 12 mm board 1220x3600x114 mm	3524 mm		376 Kg/m2
Panel with 12 mm board 1220x2440x260 mm	2364 mm		1200 Kg/m2
Panel with 12 mm board 1220x3600x260 mm	3524 mm		795 Kg/m2
Panel with 8 mm board 1220x2440x106 mm	2340 mm		736 Kg/m2
COMPRESSION STRENGTH (VERTICAL LOAD) (3)			
Panel Type			Maximum Load to Failure
Panel with 12 mm board 1220x2440x114 mm			20677 Kg/ml
Panel with 12 mm board 1220x3600x114 mm			17714 Kg/ml
Panel with 12 mm board 1220x2440x260 mm			36347 Kg/ml
Panel with 12 mm board 1220x3600x260 mm			33640 Kg/ml
Panel with 8 mm board 1220x2440x106 mm			15000 Kg/ml
RACKING SHEAR (HORIZONTAL LOAD) (4)			
Panel Type			Maximum Load to Failure
Panel with 12 mm board 2440x114 mm			2219 Kg/ml
Panel with 12 mm board 2440x260 mm			1648 Kg/ml
Panel with 8 mm board 2440x106 mm			1500 Kg/ml
FIRE RATING (5)			
Panel Type			Rating
Panel with 12 mm board			63 min
Panel with 8 mm board			41 min
ACOUSTIC RATING (6)			
Panel Type			Sound Reduction Index
Standard panel with 8 mm board			Rw=29 dB
Standard panel with 12 mm board			Rw=36 dB
Acoustic panel with 8 mm board			Rw+C=38 dB
Acoustic panel with 12 mm board			Rw+C=47 dB

(1) Based on standard ASTM E72 "Standard Test Methods of Conducting Strength Tests of Panels for Building Construction" - (2) Based on standard ASTM E72 "Standard Test Methods of Conducting Strength Tests of Panels for Building Construction" and standard NCH 803 "Panel Flexural Test" - (3) Based on standard ASTM E72 "Standard Test Methods of Conducting Strength Tests of Panels for Building Construction" and standard NCH 801 "Panel Compression Test" - (4) Based on standard ASTM E72 "Standard Test Methods for Testing the Strength of Panels for Building Construction" and standard NCH 802 "Panel Horizontal Load Test" - Values in (1), (2), (3) and (4) are for reference only. It is recommended to use a safety factor of 3, a qualified structural engineer must verify the maximum design loads according to the project, laws and legal regulations in force in the country, whether municipal, state or national. - (5) Based on standard NCH935/1 "Fire Resistance Test-Part 1: Building Elements". - (6) Based on standard ISO 140-3 "Acoustics-Measurement of Sound Insulation Part 3: Laboratory Measurements of Airborne Sound Insulation of Building Element" and theoretical calculations based on ISO 10140-1 "Acoustics-Laboratory Measurement of Sound Insulation of Building Elements Part 1: Application Rules for Specific Products" and ISO 717-1 "Acoustics-Rating of Sound Insulation in Building and Building Elements". Part 1: Airborne Sound Insulation.