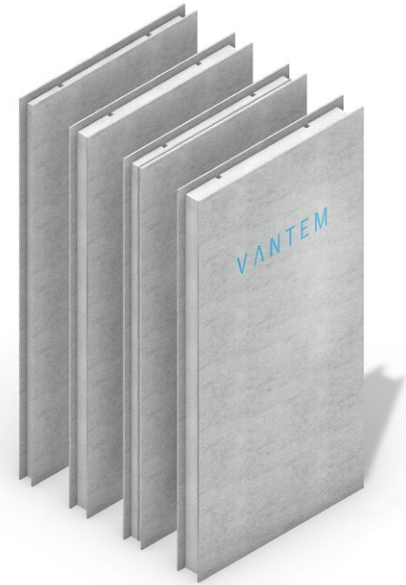


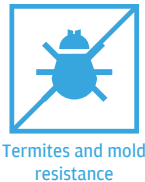
THE VANTEM PANEL

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, wether 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 Insuation 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.