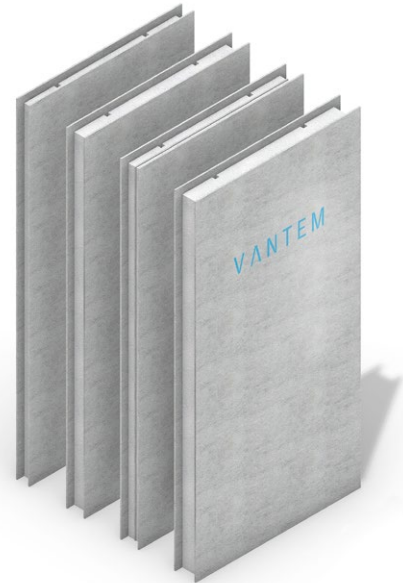


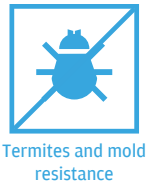
## THE VANTEM PANEL

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 ft <sup>2</sup> (average)
4 feet	8-12 feet	3-12 inches according insulation needs	with 8mm board = 4.7 lb/ft <sup>2</sup> with 12mm board = 6.9 lb/ft <sup>2</sup>
FLEXURAL STRENGTH TESTED AS WALL (TRANSVERSE LOAD) (1)			
Panel Type	Test Span	Maximum Load to Failure	
Panel with 12 mm board 48x96x4.5 in	96 in	207 psf	
Panel with 12 mm board 48x144x4.5 in	144 in	95 psf	
Panel with 12 mm board 48x96x10.25 in	96 in	266 psf	
Panel with 12 mm board 48x144x10.25 in	144 in	159 psf	
FLEXURAL STRENGTH TESTED AS ROOF (TRANSVERSE LOAD) (2)			
Panel Type	Test Span	Maximum Load to Failure	
Panel with 12 mm board 48x96x4.5 in	93 in	186 psf	
Panel with 12 mm board 48x144x4.5 in	141 in	77 psf	
Panel with 12 mm board 48x96x10.25 in	93 in	246 psf	
Panel with 12 mm board 48x144x10.25 in	141 in	163 psf	
Panel with 8 mm board 48x96x4.2 in	92 in	151 psf	
COMPRESSION STRENGTH (VERTICAL LOAD) (3)			
Panel Type	Maximum Load to Failure		
Panel with 12 mm board 48x96x4.5 in	13903 lbf/ft		
Panel with 12 mm board 48x144x4.5 in	11911 lbf/ft		
Panel with 12 mm board 48x96x10.25 in	24440 lbf/ft		
Panel with 12 mm board 48x144x10.25 in	22620 lbf/ft		
Panel with 8 mm board 48x96x4.2 in	10081 lbf/ft		
RACKING SHEAR (HORIZONTAL LOAD) (4)			
Panel Type	Maximum Load to Failure		
Panel with 12 mm board 2440x114 mm	1491 lbf/ft		
Panel with 12 mm board 2440x260 mm	1107 lbf/ft		
Panel with 8 mm board 2440x106 mm	1008 lbf/ft		
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.