

Structural Plus®

- + *Durable*
- + *Sustainable*
- + *Premium Quality*
- + *Energy Efficient*
- + *Economical*



Structural Plus®

Structural Plus® Wall Panel Options

The following table has been developed to compare similar panel types for load bearing and non-load bearing applications. Typical panel size is 12'-0" x 30'-0".

Panel Type	Solid	Insulated Panel Type					
		Composite		Non-Composite		Composite	
		Metal Truss ³ Insulated Panel with Solid Zones ⁴	Metal Truss ³ Insulated Panel No Solid Zones ⁵	Thermomass® Insulated Panel No Solid Zones		CarbonCast® Insulated Panel ⁶ No Solid Zones	
Panel Type	8-0-0	3-2-3	3-3-3	8-2-3	8-2-3	3-3-3	3-4-3
Cost Per sq. ft.	\$	\$\$	\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$
Total Panel Thickness (in)	8	8	9	13	13	9	10
Insulation Thickness (in)	0	2	3	2	2	3	4
Equivalent Concrete Thickness (in)	8	6.05	6.06	11	11	6.17	6.17
Panel Weight ¹ (psf)	100	75.6	75.8	137.5	137.5	77.1	77.1
Available Insulation Types ⁷	NA	EPS XPS	EPS XPS	XPS	Polyiso	EPS	EPS
Continuous Insulation (ci)	N	N	Y	Y	Y	Y	Y
R-value ² Steady State (hr·ft ² ·F/BTU)	0.6						17.8
Fire Rating (hr)	4	3	3	4	4	3	3
Tinted Concrete	Y	Y	Y	Y	Y	Y	Y
Architectural Finishes	Y	Y	Y	Y	Y	Y	Y
Brick Inlay	Y	Y	Y	Y	Y	Y	Y

Footnotes:

- Concrete weight assumed to be 150 pcf
- Steady state winters R-Values, insulation assumed to be Type IX, 2# EPS or XPS for Thermomass®
- Values based on six (6) rows of metal truss along with thermal bridging for the full height of panel
- Values based on (10) solid zones for lifting devices and connections, 12" x 12" in size
- Values based on (10) thickened sections for lifting devices and connections, 2" x 12" x 12" in size
- CarbonCast panel is made with carbon fiber shear connectors with two 2" x 12" continuous thickened regions for lifting and connection hardware
- Insulation types: Expanded Polystyrene (EPS), Extruded Polystyrene (XPS), Polyisocyanurate (Polyiso)

CarbonCast is a registered trademark of AltusGroup, Inc.

Structural Plus is a registered trademark of EnCon United

Thermomass is a registered trademark of Composite Technologies Corporation