

ALLOWABLE PANEL SPANS

Spans	Deflection	Superimposed Loading (psf)											
		20	30	40	50	60	70	80	90	100	110	120	130
1	L/180	13'-6"	11'-3"	9'-8"	8'-6"	7'-8"	6'-11"	6'-4"	5'-10"	5'-5"	5'-0"	4'-8"	4'-5"
	L/240	11'-8"	9'-7"	8'-2"	7'-1"	6'-4"	5'-8"	5'-1"	4'-8"	4'-4"	4'-0"	3'-8"	3'-5"
	L/360	9'-4"	7'-6"	6'-2"	5'-4"	4'-7"	4'-1"	3'-8"	3'-4"	3'-0"	2'-9"	2'-7"	2'-4"
2	L/180	14'-8"	11'-11"	10'-1"	8'-10"	7'-9"	7'-0"	6'-4"	5'-9"	5'-4"	4'-11"	4'-7"	4'-3"
	L/240	12'-7"	10'-0"	8'-4"	7'-2"	6'-3"	5'-7"	5'-0"	4'-6"	4'-2"	3'-10"	3'-6"	3'-3"
	L/360	9'-10"	7'-7"	6'-2"	5'-2"	4'-6"	3'-11"	3'-6"	3'-2"	2'-10"	2'-7"	2'-5"	2'-3"
3 or more	L/180	14'-7"	11'-11"	10'-2"	8'-11"	7'-11"	7'-2"	6'-6"	5'-11"	5'-6"	5'-1"	4'-9"	4'-5"
	L/240	12'-6"	10'-1"	8'-6"	7'-4"	6'-5"	5'-9"	5'-2"	4'-8"	4'-4"	4'-0"	3'-8"	3'-5"
	L/360	9'-11"	7'-9"	6'-4"	5'-5"	4'-8"	4'-1"	3'-8"	3'-3"	3'-0"	2'-9"	2'-6"	2'-4"

PANEL AXIAL LOAD (UNBRACED PANEL LENGTH)*

Unbraced Length	Allowable Axial Load (lbs/ft)							
	8	10	12	14	16	18	20	
Axial Load	14,022	11,280	8,646	6,396	4,897	3,869	3,134	

PANEL SHEAR (RACKING) LOADS

- Racking Shear Loads of 1/8" Deflection - 754 pounds per linear foot

ALLOWABLE HEADER LOADS (REFERENCE HEADER DEPTH 25 1/2")

SPAN	Allowable Loads
36"	998 (plf)
48"	844 (plf)
60"	690 (plf)
72"	537 (plf)

ALLOWABLE ROOF PANEL CANTILEVER SPANS

- Parallel to Panel Length: 12"
- Perpendicular to panel length < 40psf: 24in*
- Perpendicular to panel length < 100psf: 12in*
- Perpendicular to panel length < 130psf: 9in*

TENSILE STRENGTH

- Ultimate Load (lbs) - 904
- Ultimate Stress (psi) - 96,543
- Yield Stress (psi) - 88,435
- Elongation (%) - 5
- E - Young's Modulus - 50,000,000

CONCENTRATED LOAD

- 300lb Load on 3" Diameter Disc w/o Failure

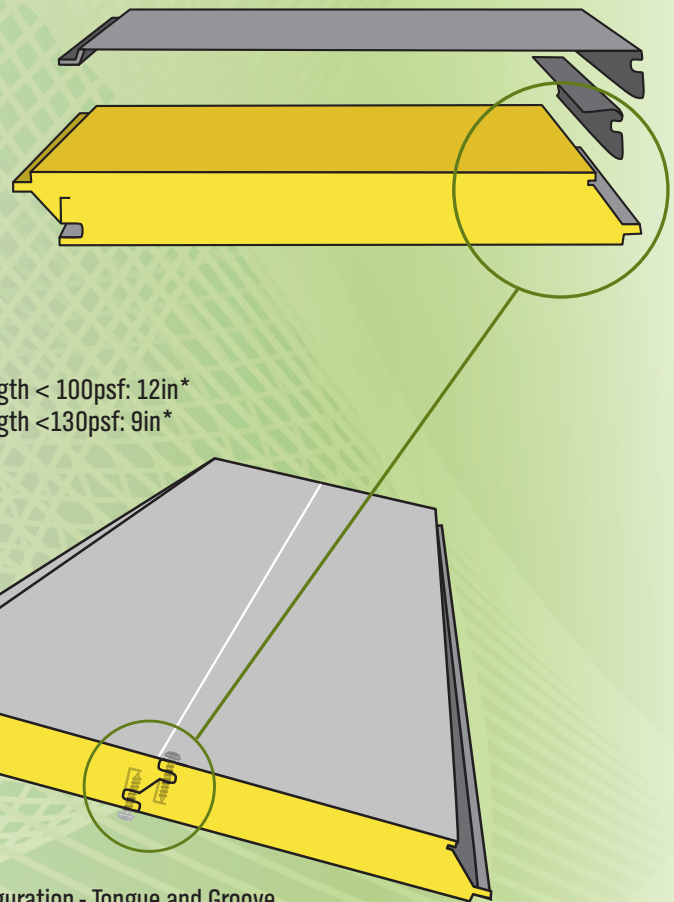
FIRE RATING

- Panel is Acceptable Component of 1 hour fire rated construction

SPECIFICATIONS

- Panel Thickness - 3 inches
- R-Value - R-24
- Thermal Break = stops conductivity of heat and cold
- Panel Width - 24 inches
- Panel Length - Custom
- Closed Cell Urethane Foam - Non CFC Class 1
- Interlock Configuration - Tongue and Groove
- Panel Skins - 26 gauge galvanized steel
- S-Shaped Structural Stiffener - 20 gauge galvanized steel
- Steel Sheets - Embossed or smooth, primed or painted
- Panel Weight - approximately 3lbs per sq ft.

*Final loading and cantilever measures to be determined by field conditions along with wind and live load requirements.




PANEL SPECIFICATIONS

EARTHQUAKE ANALYSIS ASSUMPTIONS:

- Roof dead load: 20psf in addition to panel weight
- 10' x 10' building
- Site class D
- Seismic design category E
- Design Locations: Frazier Park, California; Valdez, Alaska; Sitka, Alaska; East Prairie, Missouri
- Results: Assuming proper connections, the building meets design requirements for the areas listed above. These areas have historically had earthquakes with magnitudes exceeding 8.0 on the Richter scale.

Detailed Seismic calculations available on request.


PRODUCT

 Structural Insulated Panel can be used as main structural support walls, flooring, ceilings, roof deck and as exterior cladding.

MANUFACTURER

LamiNation Inc. dba GREEN PRODUCT TECHNOLOGIES
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DESCRIPTION

The  3" thick X 24" wide Structural Insulated Panel with smooth or embossed skins, is designed as structural support walls and roofing panels or cladding (additional weather sealing materials required) for residential, commercial, institutional and industrial construction that provides excellent insulation values and installation time savings at competitive values to conventional construction. Panels interlock using a patented tongue and groove production process utilizing a 20 gauge galvanized structural stiffener, formed continuously within the edges of the 26 gauge galvanized and primed or pre-painted steel insulated panel assembly.

APPLICATION


Used in new and renovation construction as a structural component or cladding, as required. Panel comes in a standard 24" width and is only limited in length by shipping requirements. Qualifies for LEED certifications among others.

MATERIAL CONTENT

 panel steel has 95% or higher post consumer-recycled steel content. The polyurethane foam core and the patented thermal break combine to give the  panel an effective R-24 rating.

Compressive Strength and superior adhesion along with meeting all requirements for a NON -CFC-Class 1 Foam per testing ASTM E-84.

INDUSTRY NOTES

 panels must be joined together using approved fasteners and connectors which are supplied with order as needed. Data available upon request.

TESTING

 panels have been tested to meet Florida Product Approval, ASTM E-84, Axial Load Test, ASTM E455, Racking and Shearing Testing, Live Load and Gravity Load Testing, Large Missile Testing (FBC TAS 201 &203) among many others. Data available upon request.

www.greenproducttech.com

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