



Sandwich Panels

Buildings

Technical Sheet



Product Description

Structural and insulating sandwich panels, manufactured with glass reinforced thermoplastic skin and expanded Polystyrene (EPS) core, available in various thicknesses.(0.25in.(6.3mm) – 4in.(101mm)) and unlimited lengths.



Applications

Potential uses:

- Mobile homes;
- Temporary homes;
- Permanent homes (Can replace conventional construction because of excellent performance and low cost)

➤ Industrial buildings;

For many applications including:

- Exterior walls;
- Interior walls;
- Partitions;
- Floors;
- Roofs



Buildings

Technical Sheet

Product Benefits

- Extremely light: A 4in. panel (101mm) thick 4ft x 8ft (1219mm x 2438mm) weighs 57lb (25.85kg);
- Excellent durability: resistant to fatigue, moisture, corrosion and other environmental and chemical factors. Resistant to putrefaction and mould. No maintenance required;
- Non-toxic and entirely recyclable skin;
- Highly resistant to various loads such as wind and seism;
- Excellent impact resistance (no penetration noticed on the skin after undergoing Missile test (FBC TAS 201))
- Very high heat insulation (R20 and more);
- Used in wide temperature variations, from -40°C to 100° C (-40° F to 212° F) ;
- Resisting fire propagation;
- Affordable patent pending panels;
- No adherence of snow and ice;
- Easy and versatile interior and exterior finishing. Can be combined with many types of coatings (stone, gypsum, fire retardant film, etc.);
- Uniform quality in unlimited length, fabricated using a continuous, high speed and fully automated patented process;
- Easy and fast installation and removal.

Technical Data

Physical and mechanical properties of skin material for a .078in. (2mm) thick:

Standard	Test Type	Mean Value
	Glass content	60%
ASTM D 638-96	Young Modulus	1885000psi (13000 Mpa)
	Tension strength	43500psi (300 Mpa)
	Tensile elongation	2,9%
ASTM D 790-96	Flexural Tangent Modulus	1740000psi (12000 Mpa)
	Flexural strength	39875psi (275 Mpa)
ASTM 695-96 (modified)	Compressive strength	20300psi (140 Mpa)
ASTM D 256-93	Notched Izod	29.98 ft-lb /in (1600J/M)
ASTM D 3763-95 (4 layers)	Impact multi-axial 86.61in / sec (2.2 m/sec)	28.76ft-lb (39 J)
	Multi-axial impact 86.61in / sec (2.2 m/sec)	31.72ft-lb (43 J)
ASTM D 792-91	Specific gravity	1,49
ASTM D 2240-97	Shore ' D' hardness	77
ASTM D 3763-95	Heat Deflection	311 ° F (155 °C)
ASTM G26	Ultra-violet Test	no important loss of mechanical and physical properties noticed
ASTM G7-96 et ASTM G24-94	Ultra-violet Test (Onsite test in Arizona)	no important loss of mechanical and physical properties noticed. Very little color change



Buildings

Technical Sheet

Physical and mechanical properties of the core material:

Standards	Test Type	Mean Value
ASTM D C518 C177 For 1in. (25.40mm) thick	Thermal Resistance	R-4.35 (RSI-.74)
ASTM E96 For 1in.(25.4mm) thick	Vapor Permeability	.62 perm (35.0 ng/Pa/s/m ²)
ASTM D2126 For 1.5 in. (38mm) thick	Dimensional Stability	.17%
ASTM D1621 For 1.5 in. (38mm) thick	Compression Strength	30.60psi (210Kpa)
ASTM C203	Flexion Strength	76.30psi (525KPa)
ASTM 2842 For 1.5in.(38mm) thick	Water Absorption	1.00%
ASTM E84 :5 CAN.4-S102.2M:1.40	Flame Propagation	140
Warranty	The thermal resistance of the product is freely 100% guaranteed by the supplier for a minimum period of 20 years.	

For all additional information please contact:

AS Composite

GoInaz Shokouhi (514) 697-2828 ext. 223

GoInaz.Shokouhi@ascomposite.com

www.ascomposite.com

Dimensions

- Available in unlimited lengths, up to 8.67 feet wide (2641mm);
- Panel Thickness : ¼in.(6.35mm) to 4in.(101mm);

Thermal Properties

- EPS has excellent thermal insulating properties - R4.35/in (R4.35 /25.4mm) so that (a) we conform entirely to Building Code criteria and (b) our product is free of any thermal bridges.
- Insulation core ensures uniform and durable insulation properties for a minimum of 20 years.

Fire

- AS Composite Sandwich Panel skins do not propagate fire nor emit any harmful or toxic gas as per MVSS302/NFPA102 std

Humidity

- The waterproof skin of AS Composite Sandwich Panels prevents the penetration of liquid and humidity in the structure.

Load Tables

Please contact us for any additional information required, such as Load Tables. We will forward it without delay.