

www.thermo-lite.com.au



SMARTER PRODUCTS FOR ANY APPLICATION

LIGHTWEIGHT HEAVY DUTY ROT-FREE

CoreLite

purenit[®]
made by puren[®]

Distributors of
THERMO-LITE


ENDLESS APPLICATIONS

- MARINE
- TRANSPORT
- CARAVAN/ MOTORHOME
- AMBULANCE
- LIMOUSINES
- TRAILERS
- HORSE FLOAT
- CAMPER TRAILER
- ESKY/ ICE BOX
- SANDWICH PANEL
- AVIATION
- CONSTRUCTION
- JETTIES & WALKWAYS
- SPECIALISED VEHICLES



THERMO-LITE



Thermo-Lite® is a unique lightweight composite product, manufactured with closed cell polymer foam and fibreglass that offers high specific strength and toughness.

Thermo-Lite® is durable whilst providing an excellent bonding surface, high impact strength, sound and thermal insulation, and is resistant to contamination.

Thermo-Lite® is offered in standard sheet sizing, custom sheet sizing (min order requirements), or pre-cut kits to save labour, tooling and machine costs.

Thermo-Lite® is manufactured for lifetime performance, with endless applications offering significant advantages over standard wood based products, with common uses in Marine, Automotive & Transport industries.

The unique characteristics of **Thermo-Lite®** offer many significant advantages over wood based products.

LIFETIME PERFORMANCE

- Lifetime rot-free guaranteed
- Resistant to mould & fungus
- Self-Extinguishing (when heat source removed)
- Surface easily maintained
- Resistant to contamination
- Lifetime buoyancy

STRUCTURAL STABILITY

- Closed cell structure
- Guaranteed no cracking or splintering
- Hardwearing
- Low expansion & contraction ratio
- High specific strength
- Will not corrode or deteriorate

PREPARATION & HANDLING

- Superior adhesive substrate with non-water based adhesives
- Accepts standard tooling & hardware
- Can be routed or sawn
- No edge protecting required
- Can be painted, coated or laminated

THERMO-LITE RANGE

Thermo-Lite® is a polyurethane fibreglass reinforced board offered with 4 glass layup options, offered in standard board sizes of 1220x2440, Thermo-Lite® is also available in custom size sheeting, pre-cut shapes and kits (drawing files required for pre-cut parts and kits).

Every Thermo-Lite® uses a filter material, which is a very light fibreglass used to keep a consistent distribution of foam evenly throughout the board. All boards are manufactured using e-grade class matting.

TOUGH-LITE

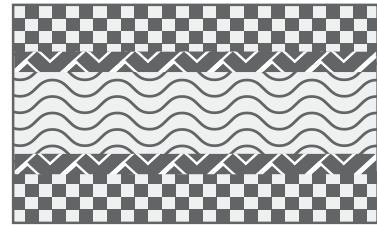
Woven E-grade matt and filter fibreglass layup

USE - Light duty structural loading applications

AVERAGE DENSITY - 320kg/m³

THICKNESS RANGE - 12mm to 19mm

BOARD SIZE - 1220x2440mm



TOUGH

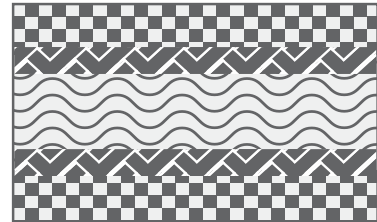
Woven E-grade matt and filter fibreglass layup

USE - Standard structural loading applications

AVERAGE DENSITY - 448kg/m³

THICKNESS RANGE - 6mm to 38mm

BOARD SIZE - 1220x2440mm



SUPREME

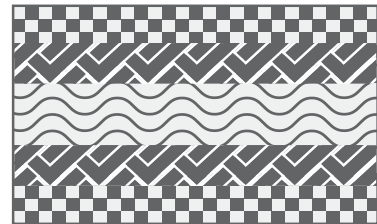
Woven E-grade matt and filter fibreglass layup

USE - Highest structural loading properties

AVERAGE DENSITY - 448kg/m³

THICKNESS RANGE - 6mm to 38mm

BOARD SIZE - 1220x2440mm



***Ask about other thickness availability**

The choice to use CFM over CSM (Chopped Strand Mat) is because CFM is looped throughout the mat to help facilitate the flow of resin, unlike the slowing effects often caused by CSM and also offers greater strength.

Fibre-reinforced polyurethane material is subject to minor inconsistent surface variables that are inherent to the manufacture process, these variables in no way affect the structural integrity of the product. Primarily for coring application, the material colour will fade over time when exposed to UV.

THERMO-LITE® MATRIX AND DEFLECTIONS

Thermo-Lite® is manufactured with the finest polyurethane and fiberglass available. Thermo-Lite® product line is offered in several densities, composition and thicknesses to suit endless applications that require a water resistance, lightweight, high strength material.



Potential Applications of Thermo-Lite®

	VERSATILE	TOUGH-LITE	TOUGH	SUPREME
Cores for glass layup applications	●			
Cabinetry & shelving	●	●		
Transportation, bulkheads, and ceilings	●	●		
Marine bulkheads, stringer		●	●	
Props, signs and theme park structures		●	●	
Wash-down areas		●	●	●
Transoms, hatches and seats			●	●
Equipment sheds and enclosures			●	●
Communication towers			●	●
Staging and concert flooring			●	●
Marine flooring			●	●
Lab and cooler walls and flooring			●	●
Transportation flooring			●	●

Thermo-Lite® – Deflections

Series	Panel Thickness	CENTER OF PANEL THAT SPANS SEVERAL JOISTS CASE 1			END OF PANEL THAT SPANS SEVERAL JOISTS CASE 2			UNATTACHED PANEL CASE 3		
		Applied Load			Applied Load			Applied Load		
		200 kg/m ²	400 kg/m ²	500 kg/m ²	200 kg/m ²	400 kg/m ²	500 kg/m ²	200 kg/m ²	400 kg/m ²	500 kg/m ²
SUPREME	12.7	1.24	2.47	3.09	2.33	4.67	5.83	5.17	10.31	12.86
	15	0.87	1.74	2.17	1.61	3.21	4.02	3.49	6.97	8.7
	19	0.54	1.08	1.35	0.97	1.94	2.42	2.04	4.07	5.09
	22	0.41	0.83	1.04	0.72	1.45	1.81	1.49	2.97	3.72
TOUGH	25.4	0.32	0.64	0.8	0.55	1.09	1.37	1.09	2.19	2.74
	12.7	1.38	2.76	3.44	2.63	5.26	6.57	5.88	10.4	14.59
	15	0.96	1.93	2.41	1.8	3.6	4.5	3.96	7.9	9.87
	19	0.59	1.19	1.49	1.06	2.16	2.7	2.3	4.6	5.75
TOUGH-LITE	22	0.45	0.9	1.13	0.8	1.61	2.01	1.68	3.35	4.19
	25.4	0.35	0.69	0.87	0.6	1.21	1.51	1.23	2.46	3.07
	12.7	1.71	3.42		3.24	6.49		7.22	13.61	
	15	1.285	2.57		2.39	4.78		5.22	10.42	
	19	0.85	1.51		1.54	30.7		3.25	6.5	

These simulations were run for various thicknesses using densities of 320kg/m³ for Tough-Lite and 448kg/m³ for Tough and supreme, with panels at 1 mtr wide with a span of 0.6 mtr. Each thickness was loaded at 200kg/m², 400kg/m², and 500kg/m² using different constraint scenarios.

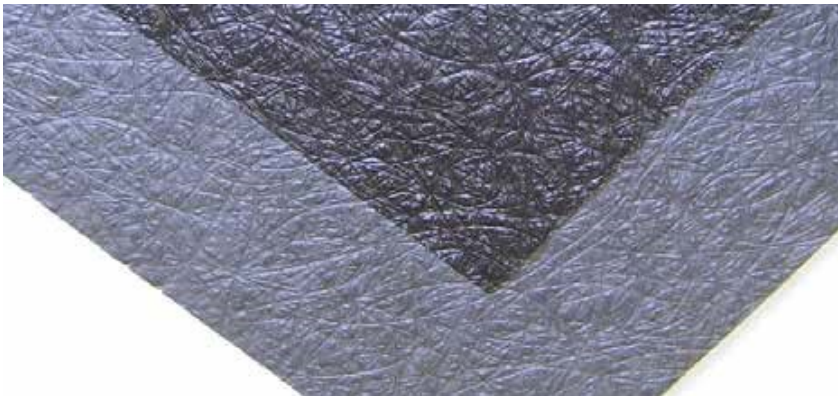
THERMO-LITE SUPERIOR FINISHES

THERMO-LITE® IS AVAILABLE IN A RANGE OF SURFACE AND APPLIED FINISH OPTIONS THAT WORK EXTREMELY WELL WITH NUMEROUS SUITABLE ADHESIVES, SEALANTS, PAINTS, COATINGS AND FAIRING COMPOUND PRODUCTS CURRENTLY AVAILABLE ON THE MARKET.



TLB NATURAL SKIN

Innate surface of the manufacturing process without texture, providing a smooth style finish offering a great bonding surface for adhesives, through bolting, or deflection from road surfaces as a roadside flooring finish.



TLB ELEPHANT SKIN

Tough-looking texture imprinted on the material surface in process, providing great deflection from roadside for flooring, through bolting, or partially visible finish not directly exposed to skin or sunlight



TLB SANDED SURFACE

Sheets travel through our sander, where the surface is sanded on one or both sides providing a smooth, flat, sanded finish great for accepting adhesives, resins, compounds and paints.



AUSTRALASIA WIDE



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