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## SMARTER PRODUCTS FOR ANY APPLICATION

LIGHTWEIGHT HEAVY DUTY ROT-FREE

DISTRIBUTORS OF

**PURE-LITE**

**ACRY-LITE**



**VIKING  
BOARD**

**CoreLite®**

**THERMO-LITE**



# WHY CCA COMPOSITE BOARDS?

CCA Boards offers a range of smart products to replace timber and other building materials in any application.

Check out our product range and data sheet pages for technical information, send us an email with any questions, or feel free to call if you would like to discuss with one of friendly sales staff what advantages CCA Board products can offer your application.



Don't forget to follow Thermo-Lite Board Australia on Facebook to see our new products, customer applications, and hear what people are saying about our products and services.





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LIGHTWEIGHT HEAVY DUTY ROT-FREE

**THERMO-LITE**



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**PURE-LITE**

**ACRY-LITE**

WE ARE HERE



MALAYSIA

AUSTRALIA

NEW ZEALAND

# 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

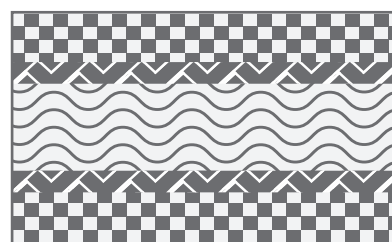
*Woven E-grade matt and filter fibreglass layup*

**USE** - Light duty structural loading applications

**AVERAGE DENSITY** - 320kg/m<sup>3</sup>

**THICKNESS RANGE** - 12mm to 19mm

**BOARD SIZE** - 1220x2440mm



## TOUGH

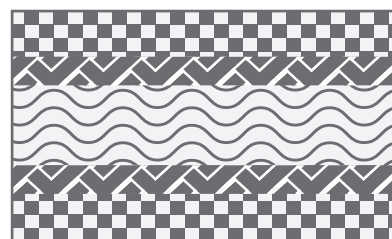
*Woven E-grade matt and filter fibreglass layup*

**USE** - Standard structural loading applications

**AVERAGE DENSITY** - 448kg/m<sup>3</sup>

**THICKNESS RANGE** - 6mm to 38mm

**BOARD SIZE** - 1220x2440mm



## SUPREME

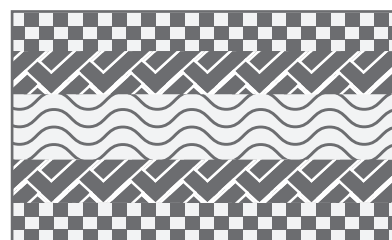
*Woven E-grade matt and filter fibreglass layup*

**USE** - Highest structural loading properties

**AVERAGE DENSITY** - 448kg/m<sup>3</sup>

**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

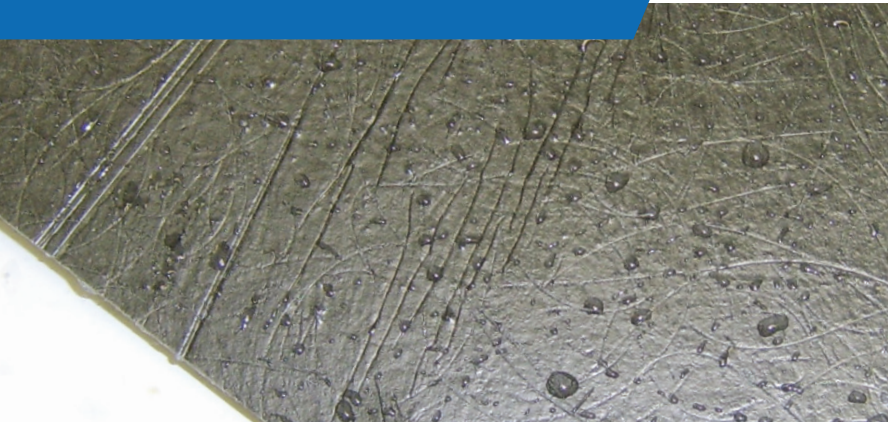
		CENTER OF PANEL THAT SPANS SEVERAL JOISTS CASE 1			END OF PANEL THAT SPANS SEVERAL JOISTS CASE 2			UNATTACHED PANEL CASE 3		
Series	Panel Thickness	Applied Load			Applied Load			Applied Load		
		200 kg/m2	400 kg/m2	500 kg/m2	200 kg/m2	400 kg/m2	500 kg/m2	200 kg/m2	400 kg/m2	500 kg/m2
SUPREME	12.7	1.24	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
	25.4	0.32	0.64	0.8	0.55	1.09	1.37	1.09	2.19	2.74
TOUGH	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	1.08	2.16	2.7	2.3	4.6	5.75
	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
TOUGH-LITE	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.**



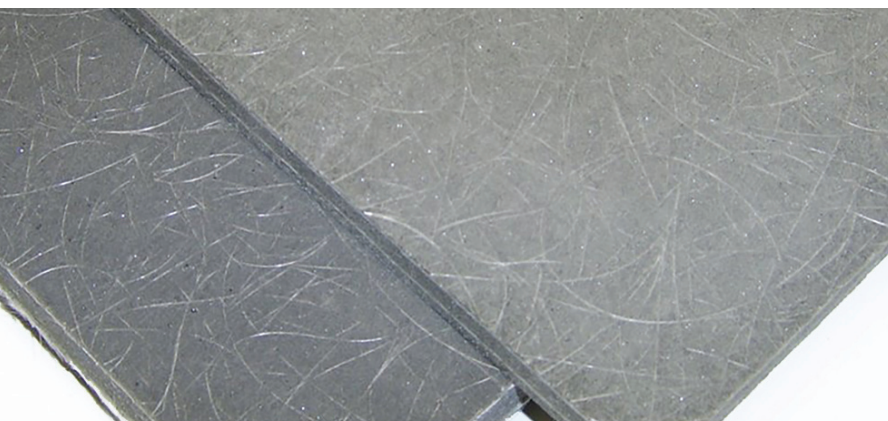
## TLB NATURAL SKIN

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.





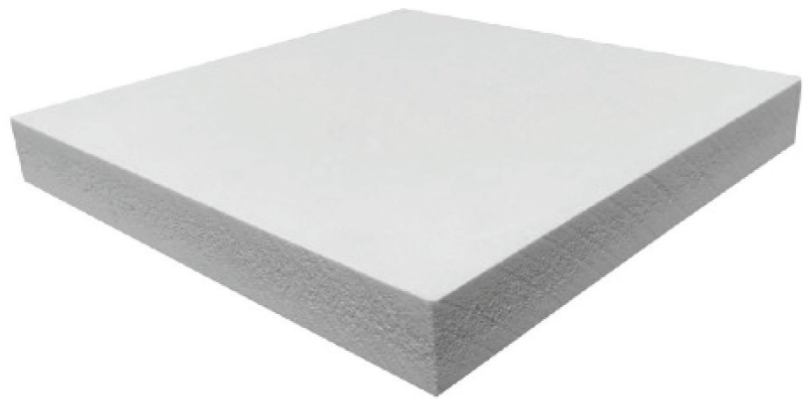
# CoreLite® Board

CoreLite® Board is a cost-effective closed-cell PVC foam specially formulated to provide high physical properties and be recyclable. Engineered for easy workability, weatherproof and insulation properties, and excellent fire behaviour. It is characterized for its phenomenal screw retention and amazing resistance to moisture; it will not rot, mold or mildew. It is also compatible with multiple resins and adhesives.

CoreLite® Board is a stand-alone product and can be used without skins as a replacements for wood and plywood. This PVC foam has excellent fastener pullout strength and high flexural strength and stiffness. CoreLite® Board is 27% lighter than plywood.

## PROCESSING

Adhesive bonding  
Pre-preg processing (up to 180°C, 355°F)  
Contact Molding (hand/spray)  
Compression moulding (GMT, SMC)  
Resin infusion/injection (VARTM / RTM)



## APPLICATIONS

**MARINE:** transom boards, consoles, seat bottoms, decks, floors, bulkheads, stringers, superstructures, engine beds, interiors, local reinforcements, tooling and molds

**TRANSPORTATION:** primary body structure, interior panels, sidewalls, floors, roofs and engine covers

**CONSTRUCTION:** decks, roof panels, doors, windows, cabinets, tables and architectural panels

**INDUSTRIAL:** covers, containers, refrigeration, tanks, local reinforcements, sporting goods, tooling and molds

**SIGNS:** outdoor displays, dimensional lettering, dimensional signs and channel letter backer

*Last Revised: October 05, 2015*

[info@constructivecomposites.com.au](mailto:info@constructivecomposites.com.au)

**CCA**  
CONSTRUCTIVE COMPOSITES  
AUSTRALIA ■■■■■■■■■■





## Mechanical properties of CoreLite®Board

MECHANICAL PROPERTIES - METRIC		
TEST STANDARDS	UNITS	VALUES
Density per ASTM C271	Kg/m <sup>3</sup>	448,52
Compressive Strength per ASTM D1621	MPa	5,84
Compressive Modulus per ASTM D1621-B	MPa	2,92
Tensile Strength per ASTM C297	MPa	3,32
Shear Strength per ASTM C273	MPa	3,07
Shear Modulus per ASTM C273	MPa	38,05
Flexural Strength per ASTM D790	%	12,40
Peel Strength per ASTM D1062	MPa	11,76
Screw Torque	N-m	2,28
Screw Pull	Kg.	102,60
Standard Sheet Dimensions	mm	1,220 x 2,440
Thickness	mm	9,53 to 50,80

Values shown are nominal average determined from independent laboratory and house testing. Tests are parallel to the plane.

Processing Temperature	<94°C
Water Absorption	< 1%
Percent Elongation at max load	1,404%
Density Tolerance	+ / - 10%
Colour	White

**Disclaimer:** The information and data presented herein are subject to revision. CoreLite Inc. reserves the right to release replacement data. The data presented is derived from in house and independent testing. Calculations should be verified with physical test. The data is provided without liability to CoreLite, Inc. or its agents and does not constitute warranty or representation in respect to the material or its use.



# CoreLite®PVC

Number **1** for Quality

CoreLite® PVC is a closed-cell, cross-linked polymer PVC foam formulated for durability, strength, and high processing temperatures. It is compatible with multiple resins and adhesives.

It has a very low water absorption rate and excellent chemical resistance. Ideal for many lightweight composite applications.

## PROCESSING

Hand lamination / spray lay-up  
Vacuum infusion  
Resin injection  
Adhesive bonding  
Pre-preg processing (up to 80°C, 176°F)  
Thermoforming

## APPLICATIONS

**MARINE:** hulls, decking, bulkheads, interiors superstructures

**TRANSPORTATION:** floors, ceilings, doors, interiors, partition walls, sidewalls

**WIND ENERGY:** rotor blades, covers, casings

**AEROSPACE:** fuselage and wind components, kitchen trolleys, galleys

**INDUSTRIAL:** Covers, Containers, Tanks, Sporting goods, Tooling and Molds

*Last Revised: December 14, 2015*





## Mechanical properties of CoreLite®PVC

MECHANICAL PROPERTIES - METRIC					
TEST STANDARDS	UNITS	48	60	80	100
Density per ASTM D1622	Kg/m <sup>3</sup>	48	60	80	100
Compressive Strength per ASTM D1621-10	MPa	0,69	0,96	1,43	1,93
Compressive Modulus per ASTM D1621-10	MPa	33	0,46	68	90
Tensile Strength per ASTM D1623	MPa	0,95	2,11	2,60	3,08
Tensile Modulus per ASTM D1623	MPa	87	106	137	169
Shear Strength per ASTM C273	MPa	0,55	0,77	1,13	1,49
Shear Modulus per ASTM C273	MPa	16	21	29	37
Shear elongation at break per ASTM C273	%	9	13	20	25
Thermal conductivity at room temperature	W/m.K	0.031	0.031	0.033	0.035
Standard Sheet dimensions	mm	1270 x 2730	1150 x 2450	1020 x 2180	950 x 2050
Thickness	mm	5 to 70	5 to 70	5 to 72	5 to 68

Values shown are nominal average determined from independent laboratory and house testing. Tests are parallel to the plane.

Colour	Purple	Yellow	Green	Pink
	+ / - 10%			

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# PURE-LITE

## PVC Foam Board

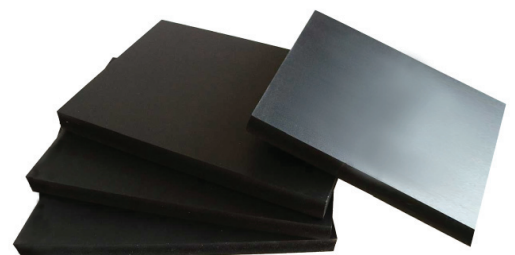
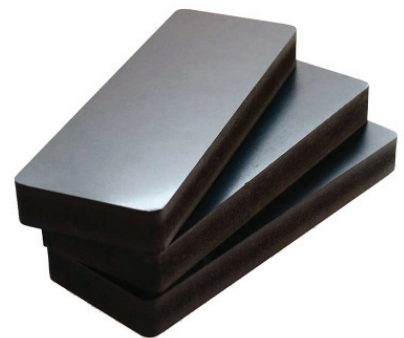
PureLite Board is a closed cell high quality PVC Foam board, with very low water absorption rate and excellent chemical resistance.

Ideal for many lightweight applications, with a finished non-transparent gloss surface, PureLite is available in a range of colors and thicknesses.

PureLite Board can be processed and cut using standard cutting tools, has great screw retention, and is easily maintained.



<b>Product</b>	PVC Foam Board
<b>Standard Size</b>	1220mm x 2440mm
<b>Thickness</b>	0.8mm - 50mm
<b>Density</b>	550kg/m <sup>3</sup>
<b>Brand</b>	PureLite
<b>Color</b>	White, Black, (other colors by request)
<b>Executive standard</b>	QB/T 2463.1-1999
<b>Certificate</b>	ISO9001
<b>Weldable</b>	Yes
<b>Life Span</b>	>50 years







# PURE-LITE

## PVC Foam Sheet Physical Property

ITEM	UNIT	INDEX
Apparent Density	kg / m <sup>3</sup>	≤ 800
Shore Hardness	-	≥ 55
Tensile Strength	Mpa	≥ 10
Breaking Elongation	%	≥ 10
Impact Strength	KJ / m <sup>2</sup>	≥ 12
Vicat Softening Point	°C	≥ 70
Size Changes In The Rate Of Heating	%	± 2.0
Water Absorption	%	≤ 1.0
Flexural Strength	Mpa	≥ 20
Elastic Modulus in Eending	Mpa	≥ 600
Screw Crip Force	N	≥ 800



# ACRY-LITE

**Acry-lite Acrylic Sheets offer consistent steady performance, excellent resilience to outdoor weather, and offer UV stability.**

Acry-lite color sheets are available in a beautiful range of colors and thicknesses, and hold steady on colors in indoor and outdoor use for up to 10 years without fade.

Acry-lite clear has perfect transparency, with light transmittance exceeding 93%.

Acry-lite is available in 1220 x 2440 sheet size, and ranges in thickness from 2mm to 10mm (thicker boards available upon request).







# ACRY-LITE

## Physical Properties

Density	1.2g/cm <sup>3</sup>
Specific Gravity	1.19 – 1.20
Rockwell Hardness	M – 100
Shear Strength	630kg/cm <sup>2</sup>
Tensile Strength	760kg/cm <sup>2</sup>
Yield Strength	1260kg/cm <sup>2</sup>
Rupture Strength	1050kg/cm <sup>2</sup>
Light Transmittance	93%
Refractive Index	1.49
Heat Distortion Temperature	100°C
Thermal Forming Temperature	140°C – 180°C
Coefficient of linear Thermal Expansion	6 x 10 <sup>-5</sup> cm/cm/°C
Dielectric Strength	20Kv/mm
Water Absorption	0.3%





# VIKING BOARD HDPE

## Spec Sheet

Mode of Forming	Extrusion
Classifications	HDPE Industrial Sheets (Engineer Sheets) HDPE UV Stabilized Sheets HDPE Anti Static Sheets HDPE Anti Flame Sheets
Sizes	Thickness Range: 6mm, 9mm, 12mm Standard Sizes: 1220 x 2440mm, 1220 x 1220mm, 610 x 1220mm We can also provide any other sizes according to your special needs.
Surface	Matte
Characteristics	Excellent Chemical Resistance Good Wear Resistance Anti-Weather and Anti-Aging Good Electrical Insulation Stain Resistant Good Protection Against Stress Cracking Very Low Water Absorption; Moisture Resistant Low Maintenance Cost Resists Organic Solvents, Degreasing Agents & Electrolytic Attack High Flexibility at High or Low Temperature The Mechanical Strength of Surface Hardness, Stretching Intensity and Rigidty is Higher than LDPE Food Safe, Non-Toxic and Smell CCA HDPE will not rot, swell or change shape, discolour or delaminate.

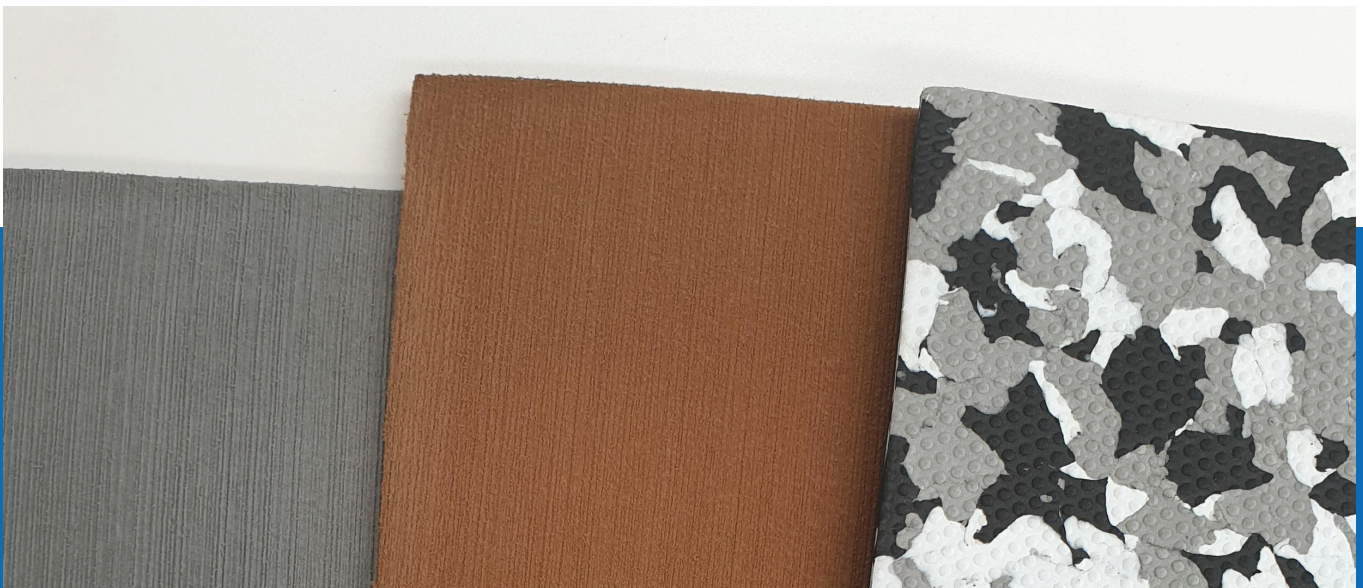




# INTRODUCING...



**A VERSATILE NON-SLIP WATERPROOF COVERING.  
SOFT YET DURABLE WITH GOOD  
SHOCK ABSORPTION PROPERTIES.**



3M adhesive backing.

Easy to install to a range of surfaces.

UV resistant, Antibacterial.

Ability to be CNC Routed and Customized.

Versatile 2400mm x 1200mm sheet size.

Large range of colours and finish options.

Ideal for Marine, Health, Transport and Leisure Industries.





## AUSTRALASIA WIDE



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