FUSION™

Composite solid surfaces

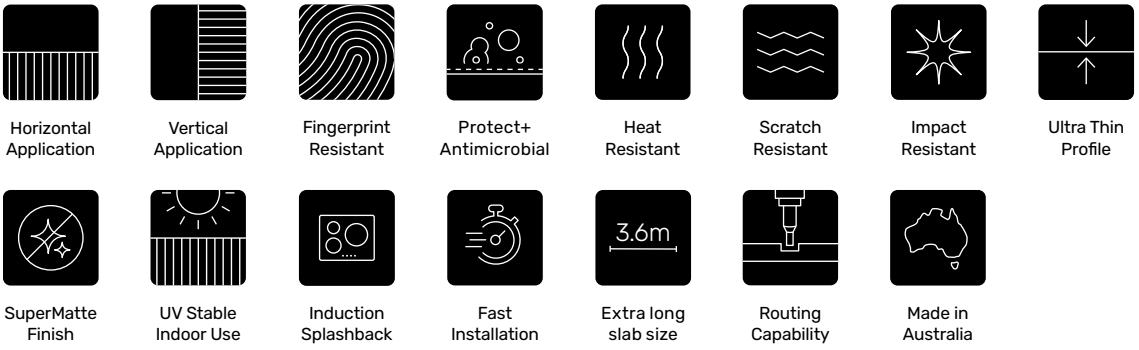
Technical Data Sheet

Fusion Composite Solid Surfaces feature a soft SuperMatte surface, incorporating Protec+® microbial resistant performance and fingerprint resistance functionality, with a complimentary coloured core.

Applications

Benchtops
Vanities
Desktops + tabletops
Induction splashbacks
Toilet partitioning
Lockers + seating
Wall panels

Product Attributes



Product Characteristics

PRODUCT CATEGORY	Composite Solid Surfaces	
SHEET SIZE (NOMINAL)	3600mm x 1500mm, 3600mm x 750mm	
THICKNESS (NOMINAL)	6mm	13mm
WEIGHT (KG/M² APPROX.)	9.2	20
FINISH	SuperMatte	
CORE COLOUR	Black, White, Pewter	
DECORATED SURFACES	Double Sided	
COLOUR/PATTERN	To view the full range, please visit www.laminex.com.au	

Dimensional Tolerance (Tested to ISO 4586-2)

ATTRIBUTE	MEASUREMENT
THICKNESS	± 0.50mm (panels with nominal thickness 6mm) ± 0.60mm (panels with nominal thickness 13mm)
EDGE DEFECTS	Defect free length and width within the nominal sheet size minus 20mm
LENGTH AND WIDTH	+10mm / -0mm maximum deviation
STRAIGHTNESS OF EDGES	1.5mm/m maximum deviation
SQUARENESS	≤ 6mm (variation in diagonal measurement)
FLATNESS (MEASURED IN HORIZONTAL)	5mm/m maximum deviation (panels with nominal thickness 6mm) 3mm/m maximum deviation (panels with nominal thickness 13mm)

Surface Quality (Tested to ISO 4586-2)

ATTRIBUTE	MEASUREMENT
INSPECTION GUIDELINES	Viewing distance 0.75 to 1.5m from panel surface. Viewing shall be conducted at 90° to the panel surface. Acute inspection angles shall not be used. Light intensity approximately 800 to 1000 lx at the panel surface. Illuminated by non critical light of intensity approximately 800 to 1000 lx at the panel surface.
DIRT, SPOTS & SIMILAR SURFACE DEFECTS	The admissible size of defects is based on a maximum contamination area equivalent to 1.0mm²/m² and is proportional to the sheet size under inspection.
	The total admissible area of contamination may be concentrated in one spot or dispersed over an unlimited amount of smaller defects.
FIBRES, HAIRS & SCRATCHES	The admissible size of defects is based on a maximum contamination length equivalent to 10mm/m² and is proportional to the sheet size under inspection.
	The total admissible length of contamination may be concentrated in one defect or dispersed over an unlimited amount of smaller defects.
INDENTATIONS	The admissible size of defects is based on a maximum contamination area equivalent to 2.0mm²/m² and is proportional to the sheet size under inspection.
	The total admissible area of contamination may be concentrated in one spot or dispersed over an unlimited amount of smaller defects.

Surface Performance (Tested to ISO 4586-2)

ATTRIBUTE	MEASUREMENT		
RESISTANCE TO SURFACE WEAR	Initial wear ≥ 150 cycles. Average wear ≥ 350 cycles		
RESISTANCE TO IMMERSION IN BOILING WATER	Mass Increase		Maximum 2.0 %
	Thickness Increase		Maximum 2.0 %
	Appearance		Appearance rating not worse than 4 *Slight change of gloss and/or colour, only visible at certain viewing angles*
RESISTANCE TO WATER VAPOUR	Appearance rating not worse than 4 *Slight change of gloss and/or colour, only visible at certain viewing angles*		
RESISTANCE TO WET HEAT AT 100°C	Appearance rating not worse than 4 *Slight change of gloss and/or colour, only visible at certain viewing angles*		
RESISTANCE TO DRY HEAT AT 180°C	Appearance rating not worse than 4 *Slight change of gloss and/or colour, only visible at certain viewing angles*		
DIMENSIONAL STABILITY AT ELEVATED TEMPERATURE	Longitudinal direction: Maximum cumulative change 0.40 % Transverse direction: Maximum cumulative change 0.80 %		
DIMENSIONAL STABILITY AT AMBIENT TEMPERATURE	Longitudinal direction: Maximum cumulative change 0.40 % Transverse direction: Maximum cumulative change 0.80 %		
RESISTANCE TO IMPACT BY LARGE DIAMETER BALL	Drop height ≥ 1200 mm		
RESISTANCE TO CRAZING	Appearance rating not worse than 4 *Surfaces unchanged, with slight hairline edge cracks visible to the naked eye*		
RESISTANCE TO SCRATCHING	Rating = 3 (Force ≥ 2 Newton)		
RESISTANCE TO STAINING	Groups 1 & 2	Acetone Coffee *(120g of coffee per litre of water)*	Appearance rating not worse than 5 *No visible change*
	Group 3	Sodium hydroxide *(25% solution)* Hydrogen peroxide *(30% solution)* Shoe polish	Appearance rating not worse than 4 *Slight change of gloss and/or colour, only visible at certain viewing angles*
LIGHTFASTNESS	Contrast: Grey scale rating ≥ 4 *When tested in contrast with Blue wool 6 Ref: ISO 105-A02*		
GLOSS LEVEL AT 60°C ANGLE *AS/NZS 1580.602.2*	≤ 8 gloss units		
COLOUR VARIATION *ISO 105-A05*	Surface material “batch to batch” colour variation of ΔE ≤ 1		

Core Performance

ATTRIBUTE	MEASUREMENT		BLACK	OTHER
RESISTANCE TO STAINING (TESTED TO AS/NZS 2924.2)	Groups 1 & 2	Acetone	Rating ≥ 5 *No visible change*	Rating ≥ 5 *No visible change*
		Coffee *(120g of coffee per litre of water)*	Rating ≥ 5 *No visible change*	Rating ≥ 3 *Moderate change of gloss sand/or colour*
	Group 3	Sodium hydroxide *(25% solution)*	Rating ≥ 4 *Slight change of gloss and/ or colour, only visible at certain viewing angles*	*Rating ≥ 5* *No visible change*
		Hydrogen peroxide *(30% solution)*	*Rating ≥ 5* *No visible change*	*Rating ≥ 5* *No visible change*
		Shoe polish	*Rating ≥ 5* *No visible change*	Rating ≥ 3 *Moderate change of gloss sand/or colour*
RESISTANCE TO STAINING (TESTED TO AS/NZS 4266.2)	Beetroot Juice Black Marking Pen Red Wine Curry Paste		Rating ≤ 1 *Complete removal of staining agent from surface*	Rating ≤ 4 *Only partial removal of stain*
	Tomato Sauce		Rating ≤ 1 *Complete removal of staining agent from surface*	Rating ≤ 2 *Faint stain left on surface*
	Soy Sauce		Rating ≤ 1 *Complete removal of staining agent from surface*	Rating ≤ 3 *Slight stain left on surface*
	Shoe Polish		Rating ≤ 1 *Complete removal of staining agent from surface*	Rating ≤ 3 *Faint stain left on surface*
LIGHTFASTNESS	Contrast: Grey scale rating ≥ 4 *When tested in contrast with Blue wool 6 Ref: ISO 105-A02*			
COLOUR VARIATION *ISO 105-A05*	Surface material "batch to batch" colour variation of ΔE ≤ 1			

Specialty Performance

ATTRIBUTE	TESTED TO:	TYPICAL VALUES	
FIRE HAZARD PROPERTIES	AS/NZS 3837 (In accordance to AS5637.1)	Group Number	3
		Average Specific Extinction Area (ASEA)	65 m²/Kg (Black core) 4 m²/Kg (Other core colours)
FINGERPRINT RESISTANCE	Laminex Internal Method	Appearance rating not worse than 4 *Slight change of gloss and/or colour, only visible at certain viewing angles*	
PROTEC+® ANTIMICROBIAL SURFACE	Protec+® antimicrobial surface technology, prevents growth of bacteria and inhibits fungus on decorative surfaces. Protec+® provides enhanced antimicrobial protection for the expected life of the product.		
ANTIBACTERIAL ACTIVITY AND EFFICACY (24 hours)	JIS Z 2801 Referred to in ISO 22196	PASS = R value > 2.0 orders of magnitude difference between a treated sample and an inert surface	
	BACTERIAL STRAINS TESTED: Staphylococcus aureus (ATCC 6538P) Escherichia coli (ATCC 8739) Methicillin resistant Staphylococcus aureus (NCTC 12493) Pseudomonas aeruginosa (ATCC 15442) Salmonella chloeraesius (ATCC 10708)		
ANTIFUNGAL (INCUBATION CONDITION: 30ºC FOR 28 DAYS AT 90% RELATIVE HUMIDITY)	ASTM G21	Rating ≤ 1 1 = Traces of growth (less than 10%) 0 = None	
	FUNGAL STRAINS TESTED: Aspergillius niger (ATCC 9642) Penicillium pinophilum (ATCC 11797) Chaetomium globosum (ATCC 6205) Gliocladium virens (ATCC 9645) Aureobasidium pullulans (ATCC 15233)		

Emissions & Environmental Performance

ATTRIBUTE	TESTED TO:	UNITS	MEASUREMENT
FORMALDEHYDE	ISO 12460-3	mg/m²h	≤ 1.0
VOLATILE ORGANIC COMPOUNDS (VOC'S)	ASTM D5116	mg/m²h	≤ 0.5

Important Information

This document must be referenced in conjunction with the latest version of the following documents, accessible at Laminex.com.au

- Fusion Composite Solid Surfaces Fabrication and Installation Manual
- Fusion Composite Solid Surfaces Care and Maintenance
- Fusion Composite Solid Surfaces Warranty

Note: Please refer to full suite of supporting documentation for product limitations (E. & O. E.).