



**GRP**  
AUSTRALIA

# PULTRUDED DECKING **PRODUCT GUIDE**

GRP AUSTRALIA | 2026

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PULTRUDED DECKING 2026

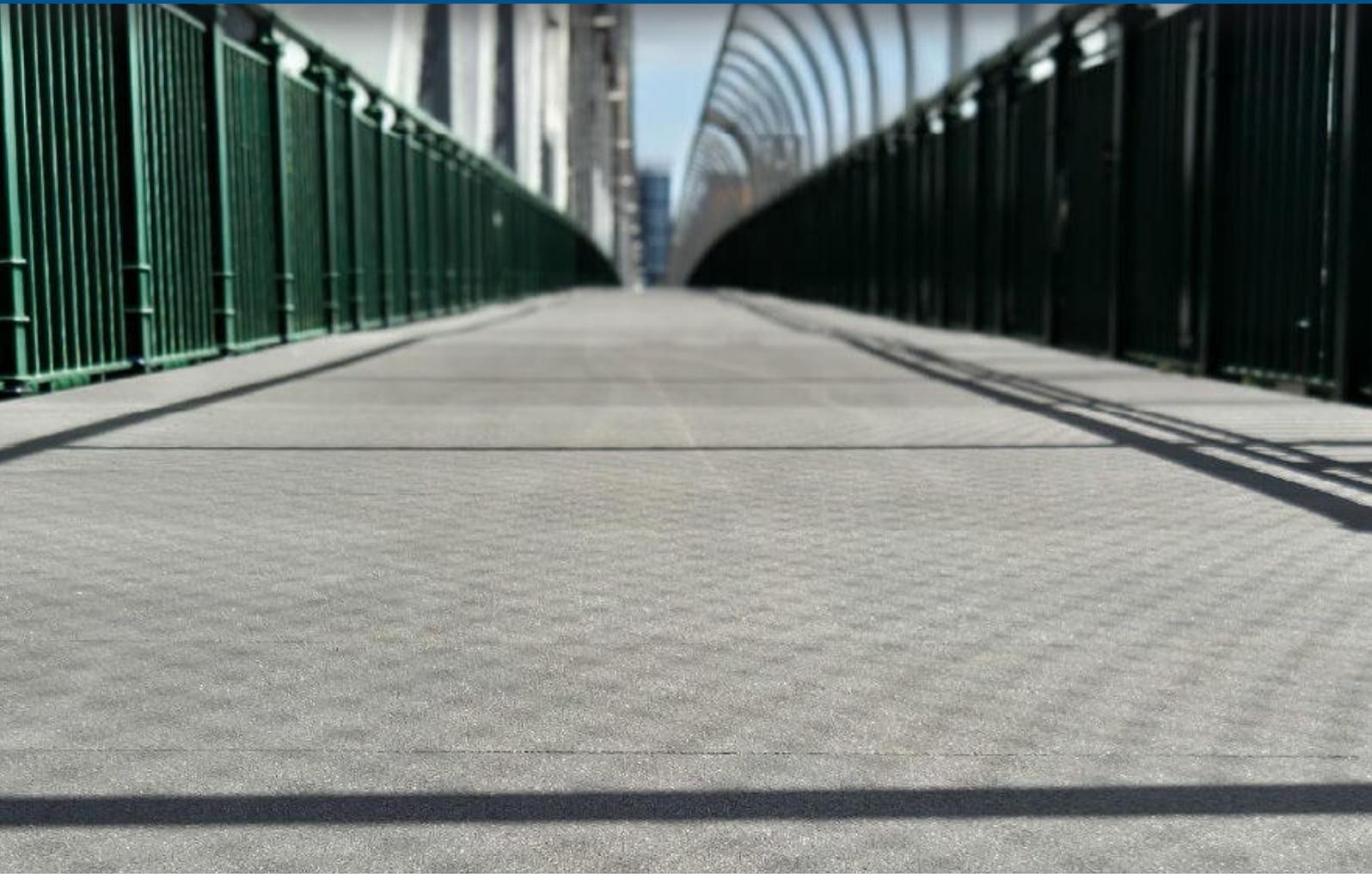
# PULTRUDED DECKING

## PRODUCT GUIDE

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## 1.0 INTRODUCTION

GRP Pultruded Decking is an engineered decking solution made from pultruded fibreglass reinforced polymer (FRP). FRP is a composite material made from a thermosetting resin, reinforced with glass fibers. The product contains additives such as colour pigments, UV stabilisers and fire retardants. GRP is a highly versatile material, with a high strength to weight ratio. It can be finished with a variety of surface textures and colours.

### Benefits of FRP Pultruded Decking



**Cost  
Competitive**



**Non-corrosive  
& rot resistant**



**As strong as  
steel**



**Termite &  
vermin proof**



**High fire  
resistance**



**UV  
Stabilised**



**Lightweight &  
easy to lift**

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### 4 2.0 SPECIFICATIONS

#### 2.1 COLOUR RANGE

Custom colours are available upon request in accordance with the RAL Colour Chart, offering an extensive selection of shades to accommodate specific project requirements. The standard GRP Australia colour for pultruded decking is Telegrey 2.



TELEGREY 2  
RAL7046

#### 2.2 SURFACE FINISH

The decking can be supplied with either a smooth or gritted surface, catering to different requirements for appearance and slip resistance. GRP Australia commonly stocks the gritted surface option, as it provides excellent anti-slip benefits, making it a preferred choice for safety in various environments.



STANDARD GRIT

#### 2.3 STANDARD LENGTHS

Pultruded decking is made to order item and can be manufactured to lengths of up to 11.8 metres, providing flexibility for various installation scenarios. GRP Australia's standard stock lengths are 5.8 metres, allowing for efficient supply and installation on most projects.

*\*MOQ of 100 lineal meters is required for custom orders & is a 10-12 week leadtime.*



### 3.0 FIRE PROPERTIES

All GRP Australia products contain fire retardants, typically alumina trihydrate. Our standard profiles are classified as class 1,25 or less flame spread index to ASTM E84. The ultimate fire rating properties of GRP pultruded products will depend on the composite mix. Pultruded profiles tested to AS 1530.3 achieved the following results:

	RANGE	IFR10	IFR25
Spread of Flame index	(0-10)	0	2
Heat Evolved Index	(0-10)	1	5
Smoke developed Index	(0-10)	5	5
Ignitability Index	(0-20)	13	10

### 4.0 MECHANICAL PROPERTIES

All GRP Australia products contain fire retardants, typically alumina trihydrate. Our standard profiles are classified as class 1,25 or less flame spread index to ASTM E84. The ultimate fire rating properties of GRP pultruded products will depend on the composite mix. Pultruded profiles tested to AS 1530.3 achieved the following results:

CHARACTERISTICS	UNIT	REFERENCE
Tensile Strength	220Mpa	ASTM D1037-93
Modulus of Elasticity	21Gpa	ASTM D1037-93
Flexural Strength	250Mpa	ASTM D1037-93
Compressive Strength	145Mpa	ASTM D1037-93
Density kg/m <sup>3</sup> (Specific Gravity)	1900-2000 kg/m <sup>3</sup>	n/a
Thermal Expansion Factor	13 x 10 <sup>-6</sup> mm/mm°C	n/a
Flammability Resistance	Class 1	ASTM E84
Anti-Slip Surface	P5	AS4586:2013

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### 5.0 APPLICATIONS

FRP pultruded decking is specifically engineered for environments exposed to harsh chemicals, moisture, and heavy traffic, making it perfect for industrial sites, marine platforms, and wastewater facilities. Its superior corrosion resistance ensures reliable performance and longevity in the most challenging conditions. These include:

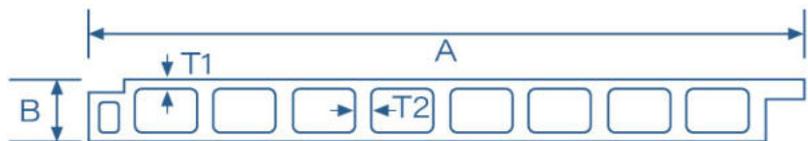
- Bridges and Boardwalks
- Jetties & Pontoons
- Water and Wastewater Treatment Facilities
- Industrial Walkways and Catwalks
- Chemical Processing Plants
- Offshore Oil and Gas Platforms
- Cooling Towers
- Corrosive Environments in Power Plants
- Food and Beverage Processing Areas
- Mining Operations
- Transportation Facilities
- Storage and Containment Areas

## 6.1 FL-A DECKING

FRP Pultruded Decking in the FL-A profile delivers a lightweight, durable, and corrosion-resistant solution ideal for demanding environments such as walkways, platforms, and marinas. Its easy installation, low maintenance, and slip-resistant surface make it a superior choice over traditional materials for both safety and longevity.



PROFILE	TOP WIDTH	OVERALL WIDTH	DEPTH	WEIGHT	SURFACE FINISH
	mm	mm	mm	kg/m	
FL-A DECK	482.6	508	50.8	19.7	Silicone Grit



Span (mm)	Point Load kN				
	450	600	900	1200	1500
L/150	63	36	16	9	6
L/200	48	27	12	7	4
L/300	32	18	8	4	3

Span (mm)	Uniform Distributed Load kPa				
	450	600	900	1200	1500
L/150	467	197	58	25	13
L/200	350	148	44	18	9
L/300	234	99	29	12	6

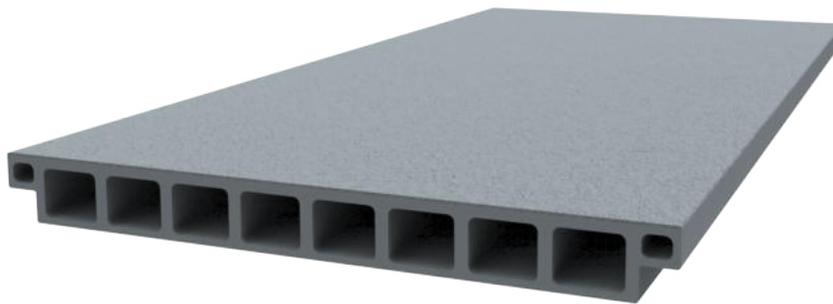
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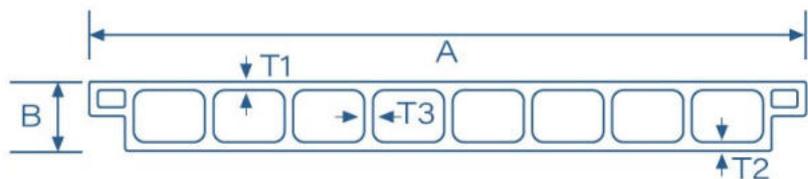
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### 6.2 FLOOR PLATE

FRP Pultruded Decking in the floor plate profile is engineered for robust performance in demanding environments, such as walkways, platforms, and marinas. This heavy-duty profile is designed to support greater spans, delivering superior strength and stiffness compared to lighter options. This FRP decking profile offers enhanced safety and longevity while significantly reducing maintenance needs—making it a reliable upgrade over conventional materials.



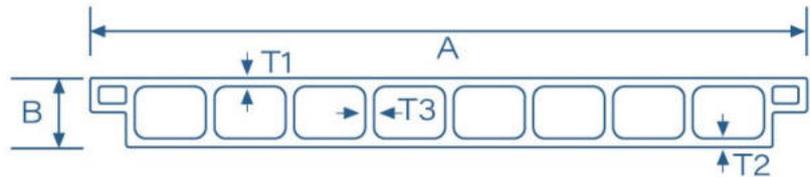
PROFILE	TOP WIDTH	OVERALL WIDTH	DEPTH	WEIGHT	SURFACE FINISH
	mm	mm	mm	kg/m	
FP500-50 (Light)	450	500	48.5	16.4	Silicon Grit
FP500-50	550	600	48.5	18.5	Silicon Grit
FP725-45	675	725	45	17.9	Silicon Grit



FP500-50-6 (LIGHT)

Span (mm)	Point Load kN				
	450	600	900	1200	1500
L/150	88	49	22	12	8
L/200	66	37	16	9	6
L/300	44	25	11	6	4

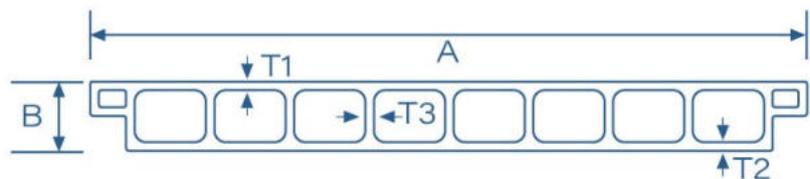
Span (mm)	Uniform Distributed Load kPa				
	450	600	900	1200	1500
L/150	625	264	78	33	17
L/200	469	198	59	25	13
L/300	313	132	39	16	8



### FP500-50-9 (HEAVY)

Span (mm)	Point Load kN				
	450	600	900	1200	1500
L/150	91	51	23	13	8
L/200	68	38	17	10	6
L/300	46	26	11	6	4

Span (mm)	Uniform Distributed Load kPa				
	450	600	900	1200	1500
L/150	649	274	81	34	18
L/200	487	205	61	26	13
L/300	324	137	41	17	9



### FP725-45

Span (mm)	Point Load kN				
	450	600	900	1200	1500
L/150	92	52	23	13	8
L/200	69	39	17	10	6
L/300	46	26	11	6	4

Span (mm)	Uniform Distributed Load kPa				
	450	600	900	1200	1500
L/150	467	197	58	25	13
L/200	350	148	44	18	9
L/300	233	99	29	12	6

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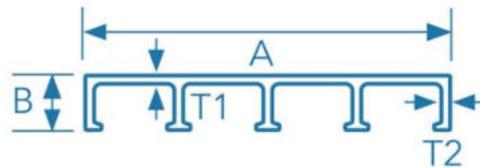
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### 6.3 DECKING

Our standard FRP Pultruded Decking profile provides a lightweight, robust, and corrosion-resistant solution, perfectly suited for tough conditions like walkways, platforms, and marinas. With straightforward installation, minimal maintenance requirements, and a slip-resistant finish, it stands out as a safer and longer-lasting alternative to conventional materials.



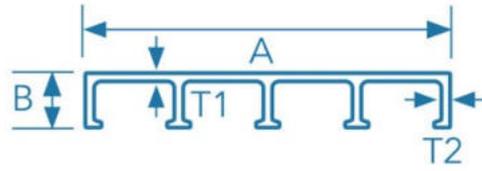
PROFILE	TOP WIDTH	OVERALL WIDTH	WALL THICKNESS	WEIGHT	SURFACE FINISH
	mm	mm	mm	Kg/m	
DECK 250x32x5	250	32	5	4.5	Silicon Grit
DECK 250x40x6	250	40	6	5.3	Silicon Grit



#### DECK250-32-5

Span (mm)	Point Load kN		
	450	600	900
L/150	9.1	5.1	2.3
L/200	6.9	3.9	1.7
L/300	4.6	2.6	

Span (mm)	Uniform Distributed Load kPa		
	450	600	900
L/150	32.5	13.7	4.1
L/200	24.4	10.3	3.0
L/300	16.2	6.9	2.0



## DECK250-40-6

Span (mm)	Point Load kN			
	450	600	900	1200
L/150	17.8	10.1	4.5	2.5
L/200	13.4	7.5	3.4	1.8
L/300	8.9	5.0	2.2	

Span (mm)	Uniform Distributed Load kPa			
	450	600	900	1200
L/150	63.5	26.8	7.9	3.4
L/200	47.6	20.1	5.9	2.5
L/300	31.7	13.4	3.9	

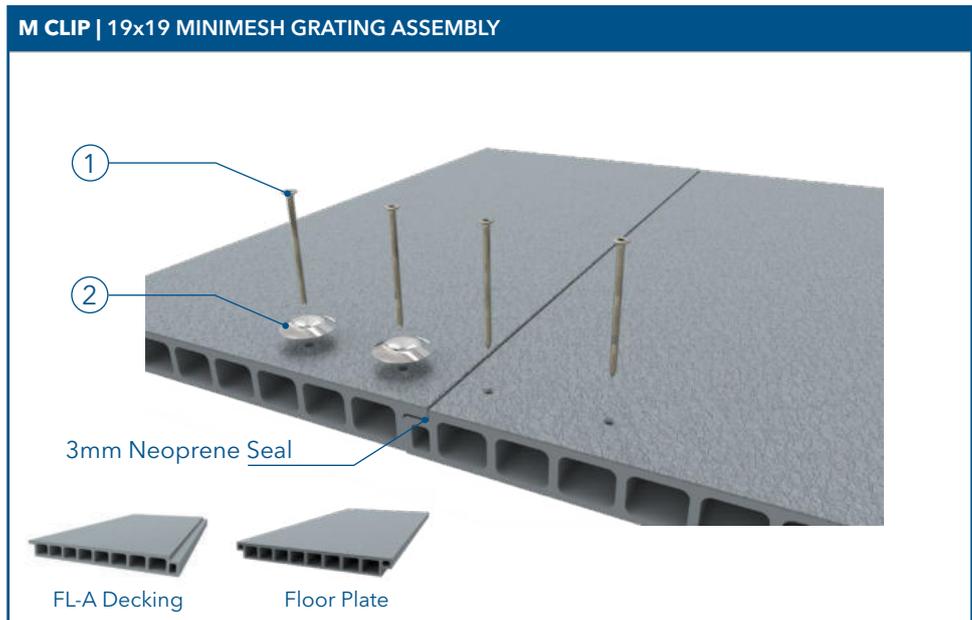
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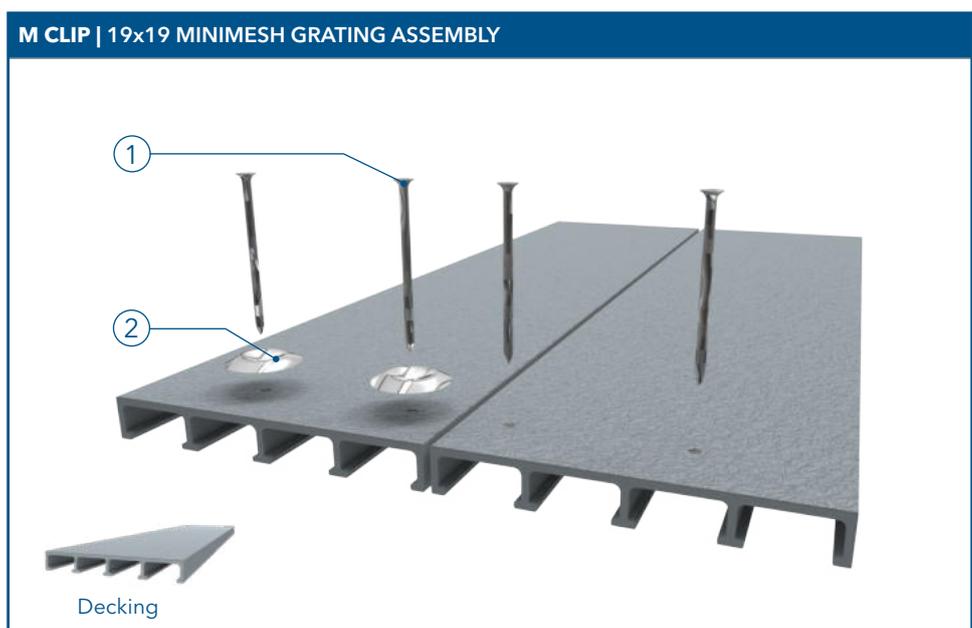
### 12 7.0 INSTALLATION METHODS

The section below illustrates standard installation methods that can be applied to all FRP Pultruded Structural Sections. Washers & fastening selections should be made according to the substrate material in use. For further info regarding installation please contact the team at GRP Australia.

#### Fasteners



#### Fasteners



## 8.0 CHEMICAL RESISTANCE GUIDE

This chemical resistance guide provides guidance to engineers for the selection of resin type of pultruded sections to be used in the particular application. The selection of the resin type depends on the following:

- Corrosion environment
- Normal operating chemical concentration
- Normal operating temperature

This table is to be treated as a guide only, further testing or field trials may be required prior to final selection.

		ISOPHTHALIC	VINYL ESTER
Chemical Environment	% CONC.	Max. Temp. °C	Max. Temp. °C
Acetic Acid	0-50	NR	38
Acetone	100	NR	NR
Aluminium Hydroxide	5-20	NR	65
Aluminium Chloride	10	NR	65
Ammonium Bicarbonate	15	NR	50
Ammonium Hydroxide	5-20	NR	50
Ammonium Sulphate	15	50	65
Barium Sulphate	100	NR	38
Benzene	100	NR	NR
Benzoic Acid	5-20	NR	38
Borax	5-20	38	65
Calcium Carbonate	10	NR	38
Calcium Hydroxide	5-20	NR	38
Calcium Hypochlorite	10	NR	50
Calcium Nitrate	5	50	65
Chlorine - Dry Gas	ALL	NR	70
Chlorine Water	10	NR	50
Chromic Acid	50	NR	38
Citric Acid	5-30	50	65
Copper Chloride	5	65	82
Copper Cyanide	5	65	82
Copper Nitrate	ALL	65	NR
Crude Oil	ALL	NR	65
Ethanol Glycol	ALL	38	65
Ferric Chloride	10	50	65
Ferric Nitrate	10	50	65
Ferrous Chloride	ALL	65	70
Fluoro silicic Acid	10	NR	70

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		ISOPHTHALIC	VINYL ESTER
Chemical Environment	% CONC.	Max. Temp. °C	Max. Temp. °C
Formaldehyde	5-30	NR	38
Gasoline	ALL	NR	70
Glucose	ALL	65	82
Glycerin	ALL	65	82
Hydrobromic Acid	5-50	38	65
Hydrogen Peroxide	30	NR	50
Lactic Acid	100	NR	70
Lithium Chloride	25	NR	50
Magnesium Chloride	10	38	65
Magnesium Nitrate	10	NR	50
Magnesium Sulphate	10	38	50
Mercuric Chloride	10	50	65
Mercurous Chloride	10	50	65
Nickle Chloride	10	50	65
Nickle Sulphate	10	50	65
Nitric Acid	5-30	NR	38
Oxalic Acid	ALL	65	70
Phosphoric Acid	5-50	38	65
Potassium Chloride	100	NR	50
Potassium Dichromate	100	NR	50
Potassium Nitrate	10	50	65
Potassium Sulphate	10	50	65
Propylene Glycol	100	65	65
Sodium Acetate	ALL	NR	70
Sodium Bisulfate	ALL	65	70
Sodium Bromide	ALL	65	70
Sodium Cyanide	ALL	NR	70
Sodium Hydroxide	0-50	NR	65
Sodium Nitrate	ALL	65	70
Sodium Sulphate	ALL	65	70
Sulphuric Acid	0-30	65	70
Sulphuric Acid	30-50	NR	70
Sulphuric Acid	50-70	NR	50
Tartaric Acid	ALL	65	70
Vinegar	ALL	65	70
Water (Distilled)	ALL	C	C

NR = Not recommended for the Concentrations and Temperatures listed.

*GRP Australia believes the data to be true and accurate but no guarantee is expressed or implied as to specific performance. Testing for specific environments is recommended. Responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the material sold.*

## 9.0 SAFETY DATA SHEET

This section provides data for protection against substances hazardous to health.

Material Identification	
Chemical Name	Fiberglass Reinforced Polyester
Common	FRP (Glass Reinforced Plastics, Fiberglass)
Application	Structural Flooring, Duct Cover, Trench or Gully Covers, Man Hole Cover.

### Composition

E Glass fibers (Uni-Directional), Woven Roving Comb Matt, thermosetting plastic resin, catalysts, aluminum oxide, pigments. UV Inhibitor. Components are chemically and thermally cured and bonded together.

### Hazard Identification

None by contact. Dust produced by cutting or grinding can penetrate pores and skin causing itching. Avoid breathing dust. First Aid procedure: Skin - shower with water and soap. Eyes - flush with sterile eye wash solution.

### Product Appearance

Open or closed profiles. Sharp edges. Zero odours. Not solvable in water. Standard colour Telegrey RAL 7047, others available on request.

### Fire Fighting Measures

Standard extinguishing equipment, water, foam, A, B or C fire extinguishers. Produces black smoke while burning, carbon particles. Use air respirator.

### Waste Disposal

Product is not considered a hazardous waste. Abide by local laws and procedures.

### Handling/Cutting

Wear masks and goggles when cutting or grinding. Cover exposed parts of the body. Wear gloves when moving or lifting. Use diamond tipped tools for cutting.

### Product Warranty

25 Year Warranty.

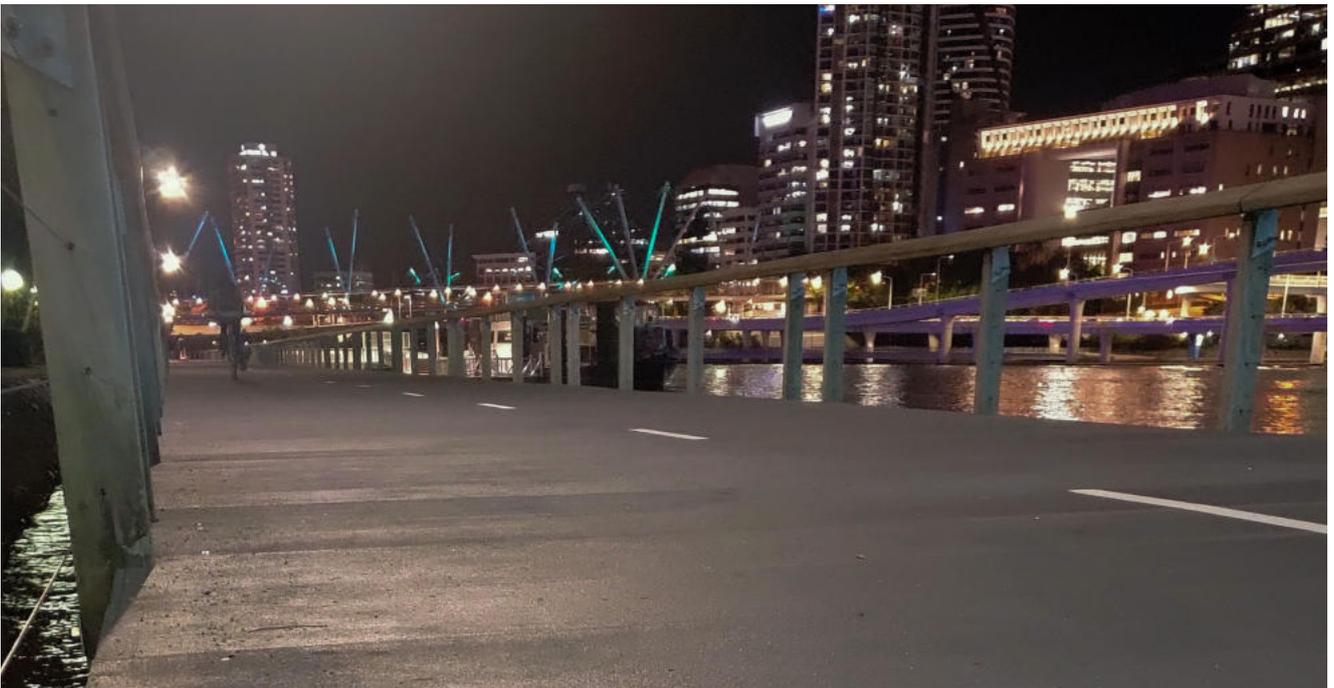
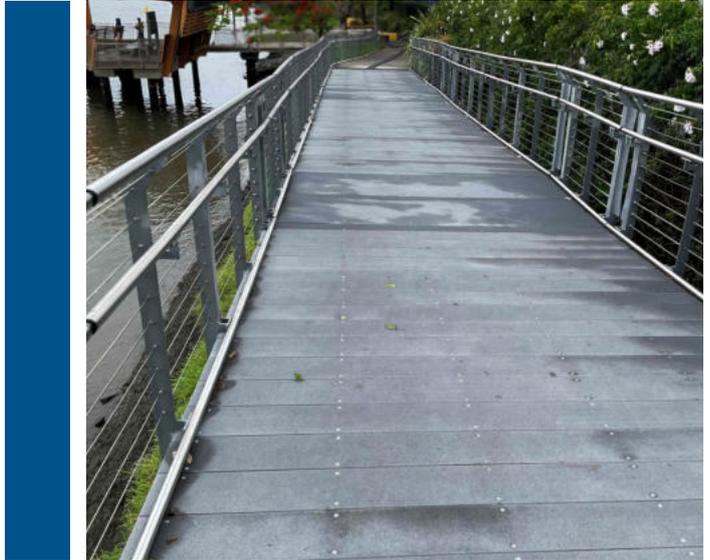
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### 10.0 GALLERY







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