Moulded Mesh Range – Intro

We are New Zealand's go-to supplier for fibreglass grating products. We test our grating range to New Zealand-specific industry standards. Our customers know they are getting the best when they order from us.

This brochure provides the specifications of our moulded grating mesh range made from fibreglass-reinforced polymer (FRP). It includes information regarding product properties, testing standards, resin types, and size and colour options.

To ensure we deliver a consistently excellent product, we've put them to the test.

VOC-FREE PIGMENT
Our products are free from volatile organic compounds.

FIRE RATING
Our grating and anti-slip flooring products are tested according to ISO 9239:1:2010. In addition, Cover Top is also tested to AS/NZS 1530.3-1999. Information on test results can be found later in this brochure.

ANTI-SLIP RATING
Our grating and anti-slip products are slip-resistant on pedestrian surface materials, meeting AS/NZS.4586:2004. The standard uses testing methods to determine slip resistance in either wet or dry conditions.

ASBESTOS COMPLIANCE
Our products meet the standard AS 4964-2004, that tests for traces of asbestos in bulk samples.

Technical Support Provided – Our skilled team is always ready to provide support. We can guide you through your project's design, specifications, and code compliance requirements to ensure your design is smart and economical.

FRP Grating Advantages

Chemical Resistance – Inherently more resistant to corrosion than other materials like steel or timber.

Resistant to Ultra Violet Radiation – UV inhibitors in the resin reduce the effects of ultraviolet radiation.

High Impact Resistance – Will not permanently deform or break under impact.

Non-Electrically Conductive – Its non-metallic properties make it ideal for electrically hazardous environments.

Ordering Steps

Select Grating Pattern

Find Depth of Load Bars

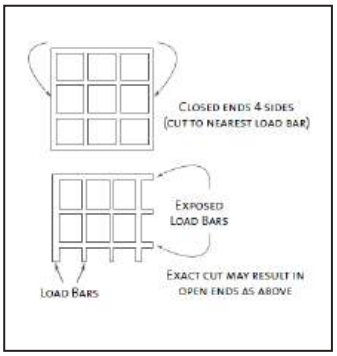
Select Surface Type

Select a Resin Type

Pick a Colour

Choose Panel Size

Cutting Grating Panels to Size



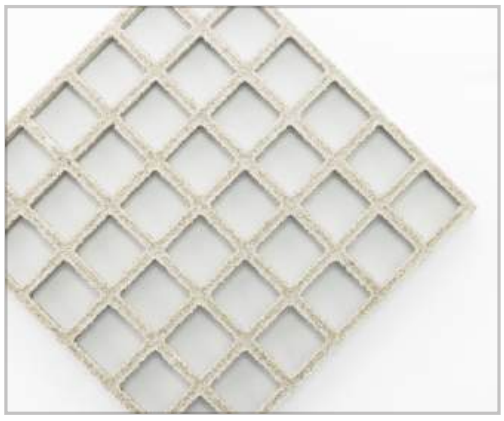
In-House Cutting Service – Our workshop is fully equipped, with sophisticated cutting processes and fabrication techniques.

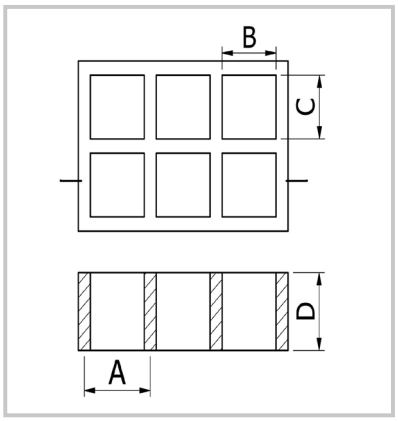
Resin Type	Description	Applications	Max Operating Temp*
Isophthalic Polyester (ISO)	General purpose grade resin suitable for minimal contact with harsh chemicals.	Applications such as food and beverage processing, salt environments, waste water.	70°
Vinyl Ester (VE)	Superior grade resin formulated to withstand frequent contact with harsh chemicals.	Especially suitable for highly aggressive environments.	85°

* Where chemicals are present, please refer to the chemical resistance chart on page 7.

Regular Mesh

Our fibreglass Regular Mesh is one of our most versatile grating products, often used for stairways, decking, drain covers, platforms, and walkways. For information on Stair Treads, see our Stair Tread Spec document.





Standard RAL Colours

6010 Grass Green

7035 Light Grey

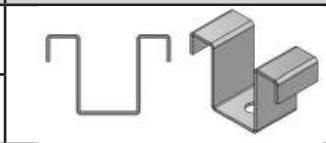
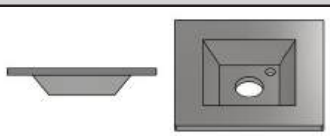
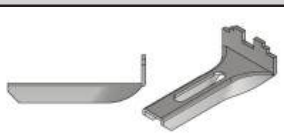
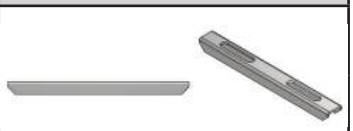
1021 Colza Yellow

7015 Slate Grey

Enquire for non-standard RAL colour options*

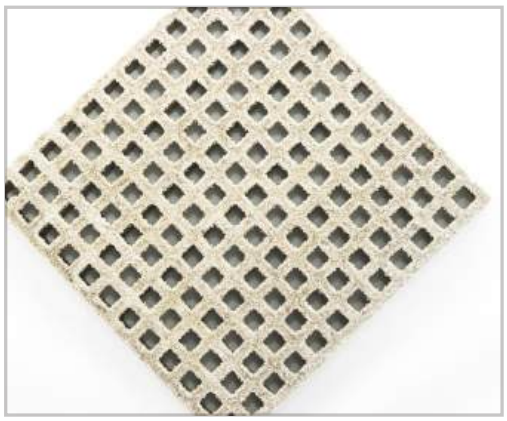
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
38 X 38	25 mm	3665 x 1226	32 x 32 mm	12.5	70%	Medium Grit	V (78)
38 X 38	38 mm	3665 x 1226	31 x 31 mm	19	67%	Medium Grit	V (78)

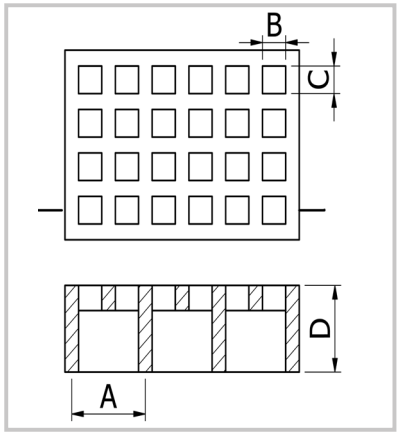
* Non-standard top surfaces and colours are available at an additional cost, subject to stock availability and order volume.

(A)	Regular M Clip	Square Recessed Clip	J Clip	U Clip
25 38				
	M8 Clip	M8 Clip	M8 Clip	M8 Clip

Mini Mesh

With a 12 mm aperture, our fibreglass Mini Mesh is ideal for walkway surfaces at height. It is also suitable for boardwalks, shared pathways, and cycleways. For information on Stair Treads, see our Stair Tread Spec document.





Standard RAL Colours

6010 Grass Green

7035 Light Grey

1021 Colza Yellow

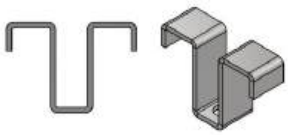
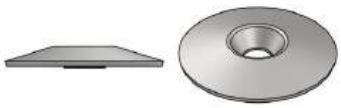
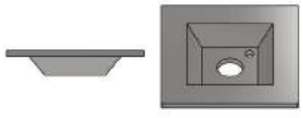
7015 Slate Grey

8011 Nut Brown

Enquire for non-standard RAL colour options*

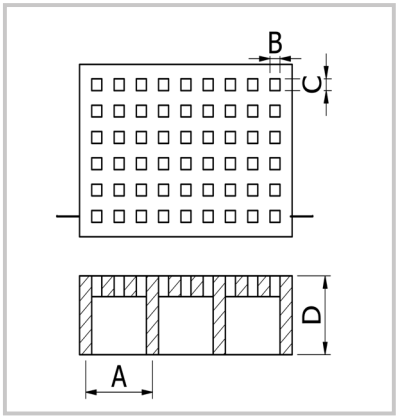
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
19 x 19	25 mm	3665 x 1226	12 x 12 mm	16.8	30%	Medium Grit	V (78)
19 x 19	38 mm	3665 x 1226	12 x 12 mm	23.5	30%	Medium Grit	V (78)
25 x 25	50 mm	3665 x 1226	19 x 19 mm	26.6	55%	Medium Grit	V (78)

* Non-standard top surfaces and colours are available at an additional cost, subject to stock availability and order volume.

(A)	Mini M Clip	Round Dome Clip	U Clip	J Clip
25 38 50				
	M5 Clip	M8 Clip	U Clip	M8 Clip (M5 option*)

Micro Mesh

With a 7 mm aperture, our fibreglass Micro Mesh is both aesthetically appealing and a comfortable surface for bare feet. It is suitable for public walkways and boardwalks.



Standard RAL Colours

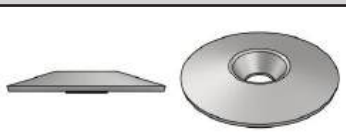
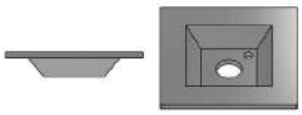
9005
Jet Black

7035
Light Grey

Enquire for non-standard RAL colour options*

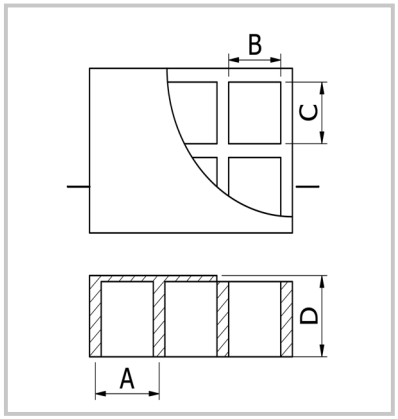
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
38 X 38	30 mm	3665 x 1226	6.5 X 6.5	19.1	30%	Fine Grit	V (71)
38 X 38	38 mm	3665 x 1226	6.5 X 6.5	23.8	30%	Fine Grit	V (71)

* Non-standard top surfaces and colours are available at an additional cost, subject to stock availability and order volume.

(A)	Round Dome Clip	Square Recessed Clip	J Clip	U Clip
				
	M5 Clip	M8 Clip (bar removal required)	J M8 Clip (M5 option*)	M8 Clip

Cover Top Mesh

Our fibreglass Cover Top Mesh is ideal for applications that require an enclosed top surface. It is suitable for bridge decking, boardwalks, cycleways, and trench covers.



Standard RAL Colours

6010
Grass Green

7035
Light Grey

1021
Colza Yellow

7001
Silver Grey

Enquire for non-standard RAL colour options*

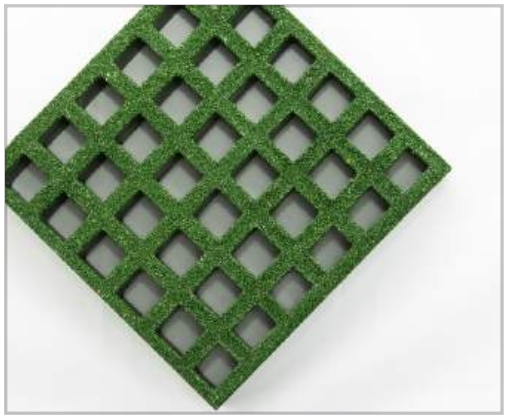
LB Pitch	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
38 X 38	25 mm + 3	3665 x 1220	31.2 x 31.2	21.1	0%	Medium Grit	V (78)
38 X 38	38 mm + 3	3665 x 1226	31.2 x 31.2	26.6	0%	Medium Grit	V (78)
38 X 38	50 mm + 3	3665 x 1226	31.2 x 31.2	36.6	0%	Medium Grit	V 78

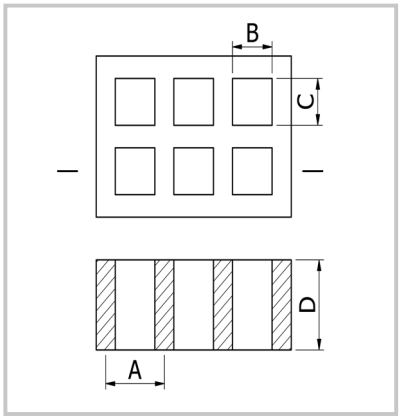
* Non-standard top surfaces and colours are available at an additional cost, subject to stock availability and order volume.

(A)	Round Dome Clip	Round Recessed Clip	J Clip	U Clip
25 38 50				
	M8 Clip	M8 Clip (Hole saw to 30 mm)	M8 Clip	M8 Clip

Heavy Duty Mesh

Our fibreglass Heavy Duty Mesh is ideal for applications that require additional load capacity. With a 50 mm thickness, it is suitable for drain covers, high-traffic areas, and loading bays.





Standard RAL Colours

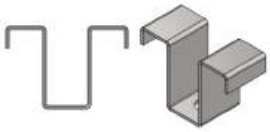
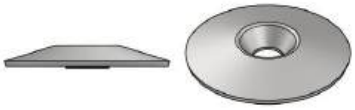
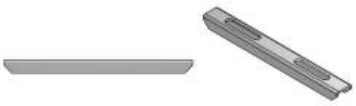
6010
Grass Green

7042
Traffic Grey A

Enquire for non-standard RAL colour options*

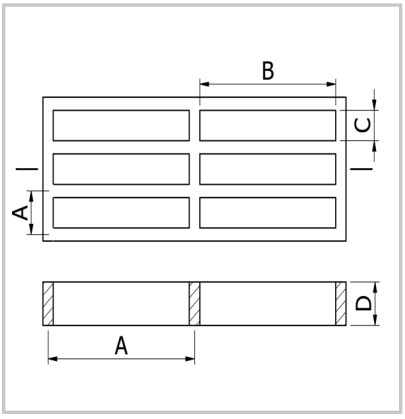
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
38 x 38	50 mm	3665 x 1226	29 x 29 mm	38.4	58%	Medium Grit	V (78)

* Non-standard top surfaces and colours are available at an additional cost, subject to stock availability and order volume.

Heavy Duty M Clip	Round Dome Clip	J Clip	U Clip
			
M8 Clip	M8 Clip	M8 Clip	M8 Clip

Slat Mesh

Our fibreglass Slat Mesh is an ideal non-slip flooring solution for livestock like sheep, deer, lambs, calves, and goats. It allows animal waste to pass through the grating and is easier to clean than other mesh types.



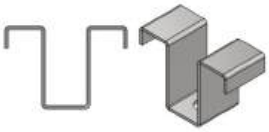
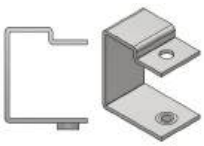
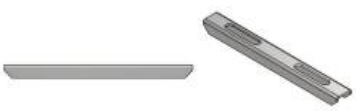
Standard RAL Colours

6010
Grass Green

Enquire for non-standard RAL colour options*

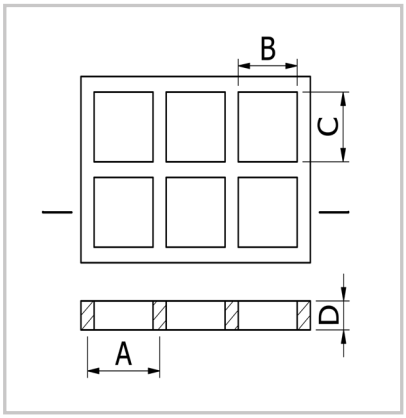
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
25 x 100	25 mm	3007 x 1007	18 x 93 mm	12.3	67%	Fine Grit	V (71)

* Non-standard top surfaces and colours are available at an additional cost, subject to stock availability and order volume.

25 mm Slat Mesh M Clip	C Clip	J Clip	U Clip
			
M5 Clip	M5 Clip	M8 Clip	M8 Clip

Light Duty Mesh

Our standard guard Light Duty Mesh utilises our fibreglass structural sections, safety mesh, and brackets from 316-grade stainless steel for a straightforward assembly. Lead times are short since materials and components are available ex-stock. Standard sections can be fabricated in-house for additional quality assurance and reduced time on-site. For information on Guarding, see our Guarding Spec document.



Standard RAL Colours

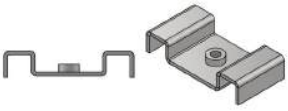
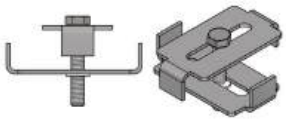
1021
Colza Yellow

9005
Jet Black

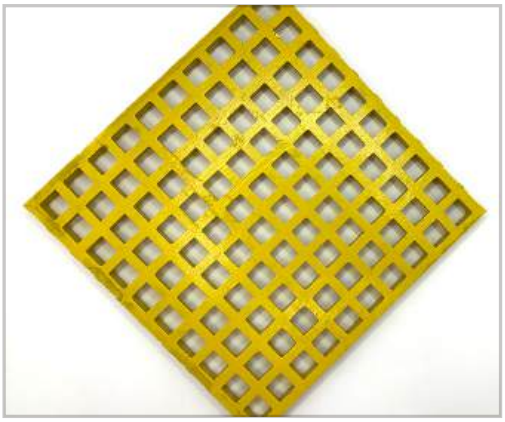
Enquire for non-standard RAL colour options*

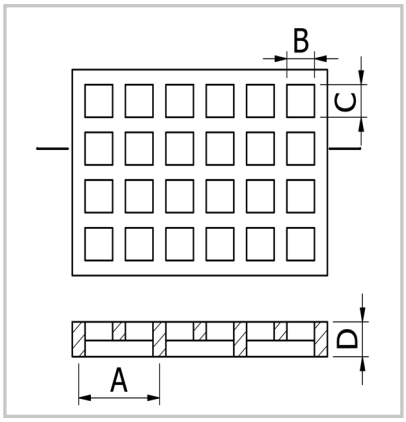
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
38 x 38	38 mm	2445 x 1220	31 x 31 mm	6.4	65%	Non Grit	—

* Non-standard top surfaces and colours are available at an additional cost, subject to stock availability and order volume.

Bossed M Clip	M Clip	Clip Retaining System	M Clip
			
M5 Clip	M5 Clip	M5 Clip	M10 Clip

Light Duty Mini Mesh





Standard RAL Colours

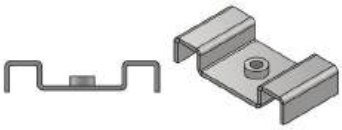
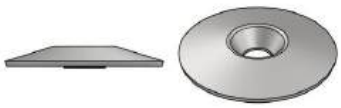
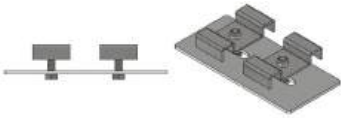
1021
Colza Yellow

9005
Jet Black

Enquire for non-standard RAL colour options*

LB Pitch	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
38 x 38	25 mm	2445 x 1247	13.5 x 13.5 mm	10.5	44%	Non Grit	—

* Non-standard top surfaces and colours are available at an additional cost, subject to stock availability and order volume.

Retaining Clip	Bossed M Clip	Round Dome Clip	Joining Plate
			
M5 Clip	M5 Clip	M6 Clip	M5 Clip

Test carried out in accordance to AS/NZS 1170.0 Appendix B - Use of Test Data for Design.
AS/NZS 1170.0 is a cited document in New Zealand Building Code B1 - Verification Method (VM/1).

Mesh Type	Nominal thickness mm	Minimum supported edges	Maximum clear span between supports	Typical industrial facilities (access only)	Typical building and infrastructure for public access or industrial facilities						
				Uniformly Distributed actions up to 4kPa				up to 5kPa	up to 7.5kPa		
				Mid-panel Concentrated actions (100mm x 100mm) associated to UDL per AS/NZS1170.1 Table 3.1							
				1.1 kN	**1.8 kN**	**2.2 kN**	**2.7 kN**	**3.6 kN**	**4.5 kN**	**6.7 kN**	**7 kN**
				Mid-panel Deflection (average of test, **including kt factor**) due to concentrated actions, mm							
Regular Mesh	25	**2**	**560mm**	4.3	6.8	8.3	10.1	13.3	16.6	24.5	25.6
	38			1.0	1.6	1.9	2.3	3.0	3.8	5.6	5.8
	25		**1150mm**	18.5	29.5	35.8	43.7	57.8	71.9	106.5	111.2
	38			4.7	7.8	9.6	11.8	15.7	19.7	29.4	30.7
	50 *HD*			1.3	2.1	2.5	3.1	4.1	5.1	7.6	8.0
	25	**4**	**1150mm**	14.3	22.5	26.9	32.1	40.9	49.2	67.3	69.6
	38			4.1	6.5	7.8	9.6	12.6	15.7	23.2	24.2
Mini Mesh	25	**2**	**1150mm**	13.9	22.6	27.6	33.7	44.9	56.0	83.2	86.9
	38			3.5	5.6	6.8	8.2	10.9	13.6	20.2	21.1
	50			2.9	4.8	5.9	7.2	9.6	12.0	17.9	18.7
	25	**4**	**1150mm**	9.4	14.6	17.4	20.6	26.0	31.0	41.9	43.3
	38			3.0	4.6	5.6	6.7	8.8	10.9	16.0	16.7
Solid Top	25+3	**2**	**560mm**	1.1	1.7	2.0	2.4	3.2	4.0	5.9	6.2
	38+3		**1150mm**	2.7	4.4	5.3	6.4	8.5	10.6	15.6	16.3
	25+3	**4**	**1150mm**	5.4	8.1	9.6	11.3	14.3	17.0	23.0	23.8
	38+3			2.2	3.3	4.0	4.8	6.3	7.8	11.4	11.9

Notes

1. denotes deflection meeting Span/250 and Span/100. denotes deflection meeting Span/100
2. Data shown is responsibly conservative and inclusive of kt values of no less than 1.5 for variability of structural units.
3. Concentrated action is applied at the position giving the most adverse effect over an area ≤ 0.01m² as per AS/NZS 1170.1 Cl 3.2.
4. Mid-span deflection under Uniformly Distributed Action is generically found to be less critical and therefore not presented. Please refer to AS/NZS 1170.1 Table 3.1 for complete list of Uniformly Distributed and Concentrated Action.
5. Please refer to Terms, Conditions and Disclaimers.

CHEMICAL ENVIRONMENT	CONCENTRATION %	TEMP °C	TYPE: ISOPHTHALIC	TYPE: VINYL
Acetic Acid	25	MAX	C	C
Acetic Acid	50	MAX	C	C
Aluminum Hydroxide	ALL	MAX	C	C
Ammonium Bicarbonate	15	48.8	C	C
Ammonium Bicarbonate	50	48.8	C	C
Ammonium Hydroxide	20	26.6	N	F
Ammonium Sulphate	ALL	48.8	C	C
Benzene	100	65.5	I	I
Benzoic Acid (SAT)	SAT	MAX	C	C
Borax (SAT)	SAT	MAX	C	C
Calcium Carbonate	ALL	MAX	C	C
Calcium Nitrate	ALL	MAX	C	C
Carbon Tetrachloride	100	26.6	N	I
Chlorine, Dry Gas	ALL	MAX	C	C
Chlorine Water (SAT)	SAT	48.8	I	C
Chromic Acid	50	65.5	N	I
Citric Acid	ALL	MAX	C	C
Copper Chloride	ALL	MAX	C	C
Copper Cyanide	ALL	60	F	C
Copper Nitrate	ALL	MAX	C	C
Ethanol	10	48.8	F	C
Ethanol	50	48.8	I	C
Ethylene Glycol	ALL	65.5	C	C
Ferric Chloride	100	MAX	C	C
Ferrous Chloride	ALL	MAX	C	C
Formaldehyde 0-50%	50	48.8	I	F
Gasoline	ALL	48.8	C	C
Glucose	ALL	48.8	C	C
Glycerine	100	MAX	C	C
Hydrobromic Acid	50	MAX	F	F
Hydrochloric Acid	10	MAX	F	C
Hydrochloric Acid	37	MAX	F	I
Hydrogen Peroxide	30	26.6	N	C
Lactic Acid	100	MAX	C	C
Lithium Chloride (SAT)	SAT	MAX	N	N
Magnesium Chloride	ALL	MAX	C	C
Magnesium Nitrate	ALL	MAX	C	C
Magnesium Sulphate	ALL	MAX	C	C
Mercuric Chloride	ALL	MAX	C	C
Mercurous Chloride	ALL	MAX	C	C
Nickel Chloride	ALL	MAX	C	C
Nickel Sulphate	ALL	MAX	C	C
Nitric Acid	20	48.8	F	F
Oxalic Acid	ALL	65.5	C	C
Perchloric Acid	30	32.2	I	F
Phosphoric Acid	80	MAX	C	C
Potassium Chloride	ALL	MAX	C	C
Potassium Dichromate	ALL	MAX	C	C
Potassium Nitrate	ALL	MAX	C	C
Potassium Sulfate	ALL	MAX	C	C
Propylene Glycol	ALL	MAX	C	C
Sodium Acetate	ALL	MAX	C	C
Sodium Bisulfate	ALL	26.6	F	F
Sodium Bromide	ALL	26.6	C	C
Sodium Cyanide	ALL	26.6	I	C
Sodium Hydroxide	10	Max	N	F
Sodium Hydroxide	50	MAX	N	F
Sodium Nitrate	ALL	MAX	C	C
Sodium Sulfate	ALL	MAX	C	C
Sulfuric Acid	10	MAX	F	C
Sulfuric Acid	25	MAX	F	C
Sulfuric Acid	75	37.7	I	C
Tartaric Acid	ALL	MAX	C	C
Vinegar	ALL	MAX	C	C
Water, Distilled	ALL	MAX	C	C
Zinc Nitrate	100	MAX	C	C
Zinc Sulfate	100	MAX	C	C

C: Continuous exposure of the grating to the temperature and chemical environment listed above
F: Frequent exposure of the grating to splashes and spills to the temperature and chemical environment listed above
I: Infrequent exposure of the grating to splashes and spills to the temperature and chemical environment listed above with the spill immediately cleaned up and washed off the grating
N: Not recommended for the temperatures and concentrations listed above

Note: The corrosion data listed above is for general information only. Resin Manufacturers have provided test data that indicate the specific resin can withstand the corrosion conditions listed. FRP Ltd believes this information to be correct. In some instances, it is necessary to test for particular environments.