

Fibreglass Reinforced Polymer (FRP) Moulded Mesh Range

FRP Limited has been New Zealand's trusted supplier of high-quality Fibreglass grating products for over ten years. Our range is rigorously tested against relevant industry standards, providing our customers with confidence that every order meets the highest standards of safety and performance.

Our moulded FRP grating is produced through a hand lay-up and open-mould casting process, where fibreglass reinforcements are layered and resin-saturated in a heated mould. The result is a seamless, one-piece panel with uniform strength, durability, and superior corrosion resistance.

To ensure we deliver a high-quality product, we've thoroughly tested them to meet industry standards:



LOW-VOC PIGMENT

Our low-VOC pigment system chemically bonds with the resin for lasting colour stability, zero solvent emissions, and cleaner production.



FIRE TEST

Our FRP grating and solid top (cover top) panels are independently tested to ISO 9239-1:2010 for flooring materials (2018 / 2020) and verified to ASTM E84 (2022), achieving a Class A rating for low flame spread and controlled smoke output.



ANTI-SLIP RATING

Our grating and anti-slip products are slip-resistant on pedestrian surface materials, meeting the requirements of AS/NZS 4586:2004. The standard utilises testing methods to determine slip resistance in both wet and dry conditions.



ASBESTOS COMPLIANCE

Our products are independently tested to AS 4964:2004 by accredited laboratories, confirming no asbestos detected and full compliance with NZ and Australian standards.



ENGINEER-CERTIFIED LOAD DATA

Our load/span tables are independently verified and certified by Chartered Professional Engineers (CPEng), ensuring reliable performance and compliance with NZ safety standards.

Technical Support Provided – Our skilled team is here to support you at every stage, guiding design, specifications, and code compliance to help you achieve a smart and cost-effective solution.

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



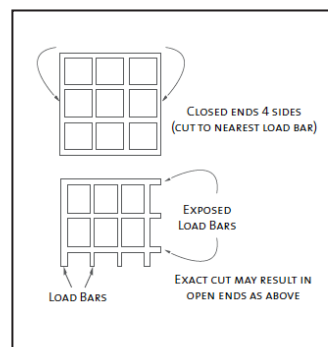
Pick a Colour



Choose Panel Size

Not sure what you need? We can review your project needs and take care of the details for you.

Cutting Grating Panels to Size



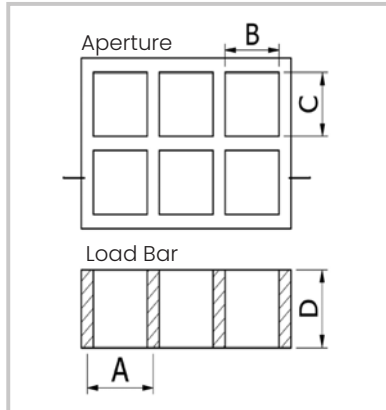
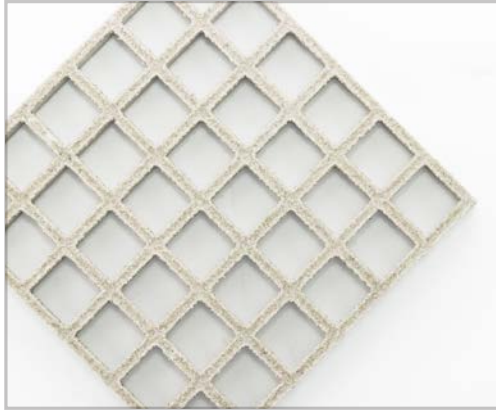
In-House Cutting Service



Our workshop is fully equipped, with sophisticated cutting processes and fabrication techniques.

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, please ask the team.



Standard RAL Colours

6010 Grass Green
7035 Light Grey
1021 Colza Yellow
7015 Slate Grey

Enquire for non-standard RAL colour options*

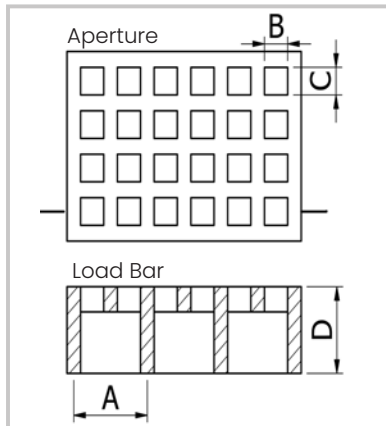
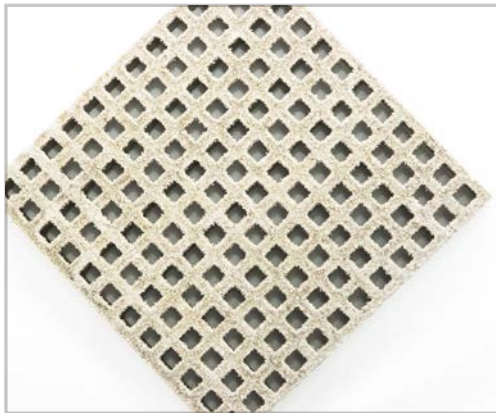
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
38 X 38	25 mm	3665 x 1226	31 x 31 mm	12.3	68%	Medium Grit	V (77)
38 X 38	38 mm	3665 x 1226	31 x 31 mm	19.5	68%	Medium Grit	V (77)

* 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				
	M Clip #3301 (25) #3302 (38)	Square Recessed Clip #3312 (38)	J Clip #3307 (38)	U Clip #3308

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.



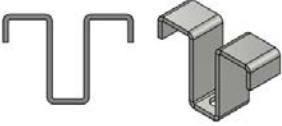
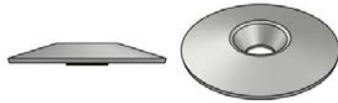
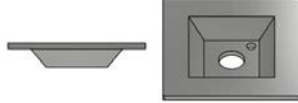
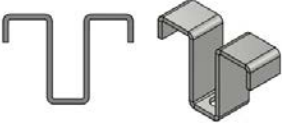
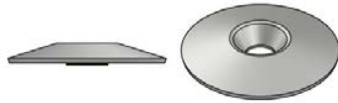
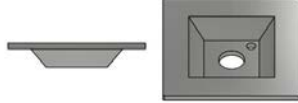
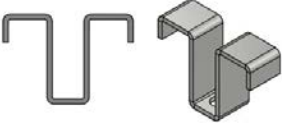
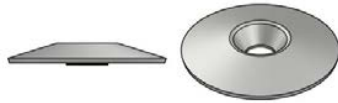
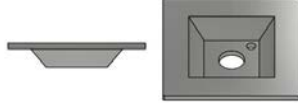
Standard RAL Colours

6010 Grass Green
7035 Light Grey
1021 Colza Yellow
7015 Slate Grey
9005 Jet Black

Enquire for non-standard RAL colour options*

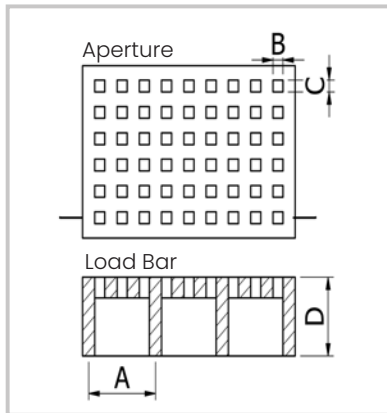
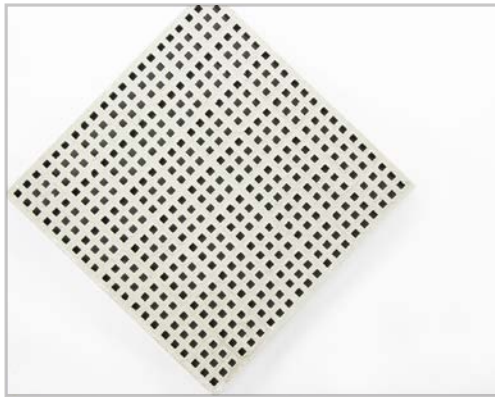
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
38 x 38	25 mm	3665 x 1226	12.5 x 12.5 mm	16.8	30%	Medium Grit	V (78)
38 x 38	38 mm	3665 x 1226	12.5 x 12.5 mm	23.5	30%	Medium Grit	V (78)
50 x 50	50 mm	3665 x 1226	17 x 17 mm	28.5	55%	Medium Grit	V (78)

* 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	Square Recessed Clip	J Clip
25				
38				
50				
	M5 Clip	M8 Clip	M8 Clip (bar removal required)	M8 Clip (M5 option*)

Micro Mesh

With a 6 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
7015 Slate Grey

Enquire for non-standard RAL colour options*

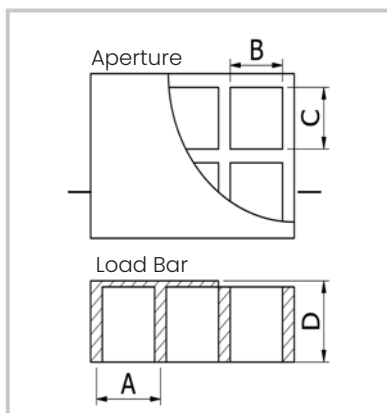
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m ²	Open Area	Top Surface	Slip Rating
38 X 38	30 mm	3660 x 1220	7 X 7	18.8	30%	Fine Grit	V (71)
38 X 38	38 mm	3660 x 1220	7 X 7	23.8	30%	Fine Grit	V (71)

* 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

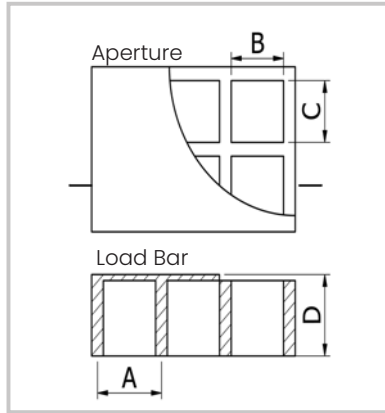
Enquire for non-standard RAL colour options*

LB Pitch	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m ²	Open Area	Top Surface	Slip Rating
38 X 38	25 mm + 3	3665 x 1226	31.2 x 31.2	21.1	0%	Medium Grit	V (77)
38 X 38	38 mm + 3	3665 x 1226	31.2 x 31.2	26.6	0%	Medium Grit	V (77)
38 X 38	50 mm + 5	3665 x 1226	31.2 x 31.2	36.6	0%	Medium Grit	V (77)
50 x 50	50 mm + 5	3665 x 1226	43 x 43	33.9	0%	Medium Grit	V (77)

(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

Diamond Top

Our fibreglass Diamond Top Mesh is a solid sheet with a raised diamond-pattern surface for slip resistance. Ideal for walkways, platforms, ramps, and work areas. Suitable for industrial, marine, and outdoor environments.



Standard RAL Colours

7035
Light Grey

1021
Colza Yellow

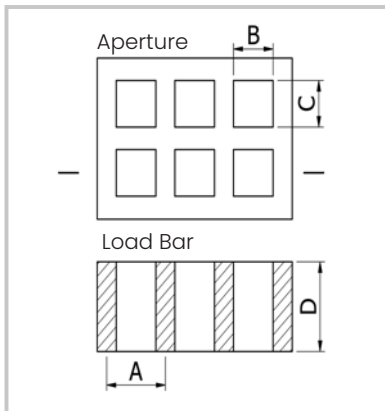
Enquire for non-standard RAL colour options*

LB Pitch	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m ²	Open Area	Top Surface	Slip Rating
38 X 38	25 mm + 3	3665 x 1226 x 38 +3	31.2 x 31.2	21.1	0%	Medium Grit	V (78)
38 X 38	25 mm + 3	3665 x 1226 x 38 +3	31.2 x 31.2	21.1	0%	Medium Grit	V (78)

(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

7015
Slate Grey

Enquire for non-standard RAL colour options*

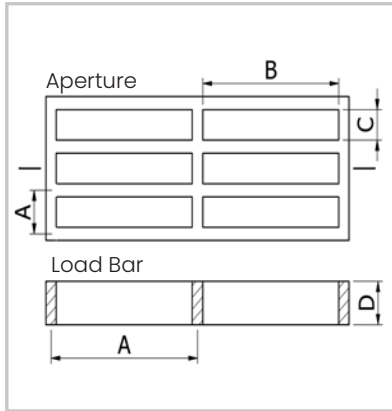
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m ²	Open Area	Top Surface	Slip Rating
38 x 38	50 mm	3665 x 1230	29 x 29 mm	38.4	58%	Medium Grit	V (78)

* 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 25

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
7035 Light Grey
9005 Jet Black

Enquire for non-standard RAL colour options*

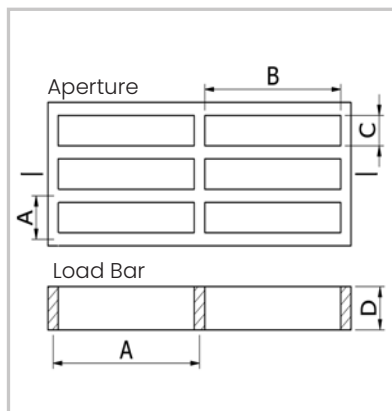
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
100 x 25	25 mm	3007 x 1007	93 x 18 mm	13	67%	Fine Grit	V (71)

* 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 (M5 available)	M8 Clip

Slat Mesh 50

Our fibreglass Slat Mesh 50 grating (variant of Mini Mesh) is designed for public walkways, combining strength, slip resistance, and effective drainage. Durable and low-maintenance, it provides a long-lasting surface for pedestrian areas.



Standard RAL Colours

6010 Grass Green
7035 Light Grey
9005 Jet Black

Enquire for non-standard RAL colour options*

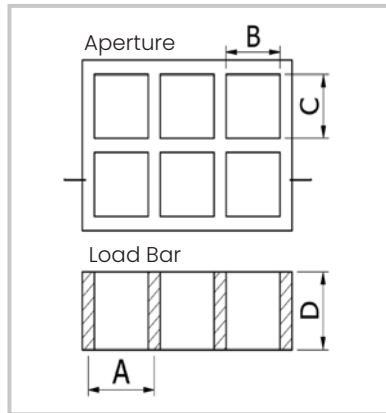
LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m²	Open Area	Top Surface	Slip Rating
75 x 19 x 50	50 mm	3007 x 1007	93 x 18 mm	12.3	67%	Fine Grit	V (71)

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

50 mm Slat Mesh M Clip	C Clip	J Clip	U Clip
M5 Clip	M5 Clip	M8 Clip (M5 available)	M8 Clip

Access Mesh

Our Access Mesh grating is specially designed for rooftop access and walkway systems. It is durable, easy to install, and maintain. Our access mesh is also non-conductive and highly resistant to slips and corrosion.



Standard RAL Colours

1021 Colza Yellow
7035 Light Grey

Enquire for non-standard RAL colour options*

LB Pitch (A)	Depth (D)	Panel Size	Aperture (B,C)	Weight kg/m ²	Open Area	Top Surface	Slip Rating
38 X 38	15 mm	3665 x 615	31 x 31 mm	7.0	78%	Medium Grit	V (77)

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

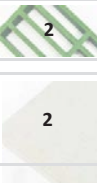
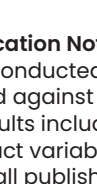
(A)	Regular M Clip	Square Recessed Clip	J Clip	U Clip
15				
	M8 Clip	M8 Clip	M8 Clip	M8 Clip

Molded Mesh Range – Load Table

Version: October 2025

Test carried out in accordance with 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	AS1657 (Access only)	Mid-panel Concentrated actions for selected AS/NZS 1170.1's Type of Activity - see next page. Concentrated action (100mm x 100mm) is applied at the position giving the most adverse effect over an area $\leq 0.01\text{m}^2$ as per AS/NZS 1170.1 Clause 3.2							
				1.1 kN	1.8 kN	2.2 kN	2.7 kN	3.6 kN	4.5 kN	6.7 kN	9 kN	
				Mid-panel Deflection (average of test, including kt factor) due to concentrated actions, mm kt factor is to allow for variability of structural units, taking into account the coefficient of variation computed for NZ-based test								
Regular Mesh	25		560mm	3.4	5.5	6.7	8.3	11.0	13.8	20.5		
	38		0.8	1.3	1.5	2.3	2.5	3.1	4.7	6.3		
	25			1150mm	17.6	28.8	35.2	43.2	57.7			
	38			4.0	6.6	8.0	9.9	13.1	16.4	24.5	32.9	
	25			1150mm	12.0	19.1	22.8	27.4	35.1	42.4		
	38			3.2	5.2	6.4	7.8	10.4	13.0	19.3	26.0	
	50HD			1150mm	1.0	1.7	2.1	2.6	3.4	4.3	6.4	8.6
	50HD			1700mm	3.8	6.3	7.7	9.4	12.6	15.7	23.4	31.4
Mini Mesh	25		1150mm	11.4	18.7	22.8	28.0	37.3	46.7			
	38			3.3	5.4	6.6	8.1	10.9	13.6	20.2	27.1	
	50			2.5	4.0	4.9	6.0	8.0	10.0	14.9	20.1	
	25				1150mm	7.9	12.4	14.8	17.7	22.5	26.9	36.6
	38	2.6	4.3			5.3	6.5	8.6	10.8	16.1	21.6	
Micro Mesh	30		1150mm	9.4	14.1	16.6	19.5	24.2	28.6	37.9	46.3	
			4	6.5	10.3	12.3	14.8	19.0	22.9	31.8	40.0	
	38		650mm	1.7	2.8	3.4	4.2	5.6	7.0	10.5	14.0	
			1150mm	3.5	5.7	7.0	8.6	11.5	14.4	21.4	28.7	
Slat Mesh	25		610mm	6.6	10.8	13.2	16.2	21.6	27.0			
			990mm	19.8	32.4	39.6	48.6					
Solid Top	25+3		560mm	0.8	1.3	1.6	2.0	2.6	3.3	4.9	6.6	
	38+3		1150mm	1.9	3.2	3.9	4.7	6.3	7.9	11.8	15.8	
			1490mm	3.7	6.0	7.4	9.1	12.1	15.1	22.5	30.2	
	25+3		1150mm	4.2	6.4	7.5	8.9	11.3	13.5	18.5	23.2	
	38+3			1.4	2.3	2.9	3.5	4.7	5.8	8.7	9.1	

Design and Verification Notes

- Testing was conducted on a calibrated rig in accordance with AS/NZS 1170.0 Appendix B ("Use of Test Data for Design") and benchmarked against Table 3.1 of AS/NZS 1170.1.
- Published results include a conservative confidence reduction factor (1.5), applied based on the testing completed to date and natural product variability.
- This ensures all published data represent real-world performance rather than ideal laboratory outcomes.
- As our New Zealand testing programme continues, this factor will progressively reduce.
- Many overseas tables exclude such allowances entirely – FRP Limited applies it deliberately so designers can specify with genuine confidence.
- Grating samples are tested without fasteners or fixings, meaning the results reflect the grating's inherent structural performance.
- When installed correctly, the inclusion of fasteners and edge restraint typically enhances stiffness and service behaviour, providing additional assurance in practical applications.
- All load data represent mid-span concentrated actions applied at the most adverse location, using a 100 × 100 mm platen ($< 0.01\text{m}^2$) as defined in Clause 3.2 of AS/NZS 1170.1.
- Uniformly distributed actions are less critical for this product class; designers should reference AS/NZS 1170.1 Table 3.1 for corresponding area-load values.
- Each dataset has been reviewed and verified by a Chartered Professional Engineer (CPEng) for compliance with the cited standards and alignment with NZ Building Code B1 VM/1.
- FRP Limited maintains an ongoing verification programme, ensuring every product family is validated under real-world loading scenarios so that published figures remain dependable and transparent.

Areas in residential, social, commercial and industrial, and administration structures are divided into seven categories, according to their type of activity or occupancy, as shown in the leftmost column of the following table.

The first four common categories are shown on the following page for ease of reference. The information is extracted from Table 3.1 Reference Values of Imposed Floor Actions of AS/NZS 1170.1.

Type of activity / occupancy for part of the building or structure	Specific Uses	Concentrated actions (Minimum)
(A1) Self-contained dwellings	Stairs and landings in self-contained dwellings	2.7kN
	Non-habitable roof spaces in self-contained dwellings	1.4kN
(A2) Other	Communal kitchen	2.7kN
	Balconies and roods used for floor type activities with community access	1.8kN
(B) Offices and work areas not covered elsewhere	Operating theatres, X-ray rooms, utility rooms	4.5kN
	Work rooms (light industrial) without storage	3.5kN
	Offices for general use	2.7kN
	Offices for general use (where general allowance for safes is made)	6.7kN
	Communal kitchens	2.7kN
	Commercial / institutional kitchens	4.5kN
	Laundries	4.5kN
	Laboratories	4.5kN
	Factories, workshops and similar buildings (general industrial)	4.5kN
	Balconies and roods used for floor type activities with community access	1.8kN
(C1) Areas with tables	Public, institutional and communal dining rooms and lounges, cafes and restaurants	2.7kN
	Reading rooms with no book storage	4.5kN
	Classrooms	2.7kN
(C2) Areas with fixed seats	Institutional assembly areas such as classrooms, lecture theatres and similar	2.7kN
	Public assembly area such as public halls, theatres, courts of law, auditoria, conference centres and similar	2.7kN
	Places of worship	2.7kN
(C3) Areas without obstacles for moving people	Corridors, hallways, aisles, stairs, landings, concourses, terraces, plazas, etc., not subject to wheeled vehicles	4.5kN
	Corridors, hallways, aisles, stairs, landings, concourses, terraces, plazas, etc., subject to wheeled vehicles	4.5kN
	Museum floors and art galleries for exhibition purposes	4.5kN
	Balconies and roof used for floor type activities	1.8kN
(C4) Areas with possible physical activities	Dance halls and studios, gymnasia	3.6kN
	Drill halls and drill rooms	9.0kN
(C5) Areas susceptible to overcrowding	Assembly areas without fixed seating (concert halls, bars, vestibules, public lounges, places of worship, shopping malls) and grandstands	3.6kN
	Stages in public assembly areas	4.5kN
(D) Shopping areas	Shop floors for the sale and display of merchandise	3.6kN

Resin Types Explained

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°



Moulded Mesh Range – Chemical Resistance

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 Limited believes this information to be correct. In some instances, it is necessary to test for particular environments.