



FRP Grating Catalogue

Moulded Grating, Mini-Mesh Grating, Micro Mesh Grating, Solid Top Grating, Pultruded Grating, Trench Deck and FRP Accessories



About FRP

The unique characteristics of composites make them suited for an immense variety of uses, including the civil and public infrastructure, marine, aerospace, petroleum and many more.

At Terra Firma Industries, we're passionate about modern composite materials. That's why we developed our TerraGrate FRP range.

TerraGrate FRP (Fibre Reinforced Polymer/Plastic) is lighter and stronger than equivalent traditional materials like wood, steel, concrete etc.

As a result, FRP sheeting offers significant time and cost savings during installation and maintenance. TerraGrate FRP does not corrode, rot or burn and can be easily fabricated on site using common hand tools. It's perfect for use in exposed, corrosive and chemical environments

TerraGrate FRP offers a range of benefits over traditional materials:



Lightweight



Strong



Improved OH&S



Corrosion resistant



Fire resistant



Chemical resistant



Non-conductive



Slip resistant



Cost effective



Design friendly



Durable



Colour stable

Because FRP is made by combining a matrix of resins and fibres, the resins can be tailored to meet very specific requirements including chemical, electrical, fire or slip-resistance. The fibres can be chosen for different strength and flexibility ratings.

TerraGrate offers a full range of FRP products including walkway and platform mesh, support pedestals, handrails, stairs, anti-slip flooring, marine-grade walkway and structural profiles.



Moulded Grating Codes

FM	ST	3838	25+5	I	MG	DGY	3660x1220
BASE PRODUCT OPTIONS							
Type of Grating	Mesh Type	Load Bar Centres	Depth	Resin NB: Always Isophthalic unless otherwise requested by client	Surface Treatment	Colour	Panel Size
TGM or FM = Terragrate Moulded Grating	Blank = Square mesh Micro = Micro Mesh Mini = Mini mesh ST = Solid top REC = Rectangular mesh	38x38mm 40x40mm 50x50mm For mini & micro mesh (secondary load bars are shown before the main load bars as follows 20/20 40x40)	13mm, 25mm, 38mm, 50mm etc. For solid top +3 or +5 indicates thickness of the solid top	O = Orthophthalic I = Isophthalic V = Vinyl Ester P = Phenolic	FG = Fine Grit MG = Medium Grit CO = Concave NG = No Grit CN = Conductive DI = Diamond pattern solid top CK = Checkerplate pattern solid top	BLK = Black (RAL9011) DGN = Dark Green (RAL6010) DGY = Dark Grey (RAL7015) LGY = Light Grey (RAL7035) YLW = Yellow (RAL1003)	Panel Size: 3660x1220 3006x1226 3687x1247 etc

Icon Descriptions



Typically stocked item



Non-stock item



Compliant with the Australian Disability Access Code AS 1428



Conforms to Australian Standard AS 1657-2018



Conforms with Australian Standard AS 1657-2018, Clause 4.5



Weight per square metre



Conforms to Australian Standard AS 4586-2013 P5 Slip Resistance



Product is pet friendly



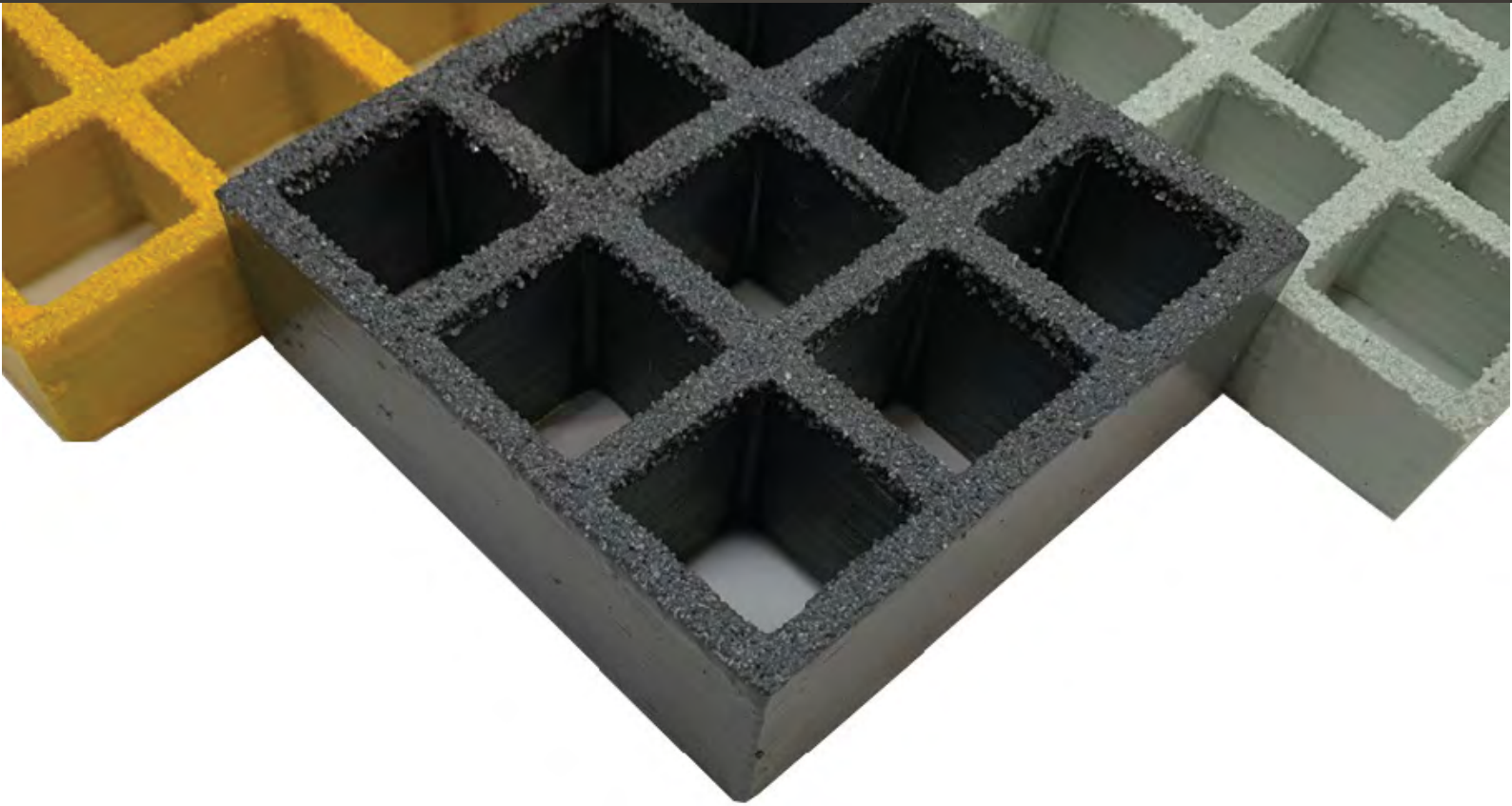
Product is heel safe



BAL 40 fire rated



Moulded Grating



TerraGrate® Fibreglass Reinforced Plastic Moulded Grates are an open weave mesh available in a variety of panel and grid sizes, depths, resins, and standard & custom colours.

Surface options include a meniscus or integrally applied grit top, both of which offer superior, slip resistant footing.

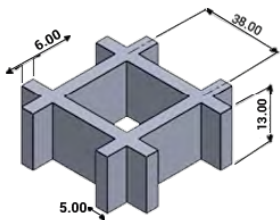
TerraGrate® moulded grating is a lighter, stronger, and more durable alternative to more traditional materials, providing a solution that fits a wide range of applications and environments.

TerraGrate® FRP is available in a variety of standard panel sizes or it can be manufactured as custom panels ready for installation.

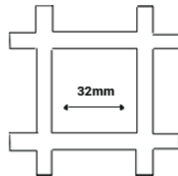


Moulded Grating Products

FM-38x38x13



ISOMETRIC VIEW



PLAN VIEW



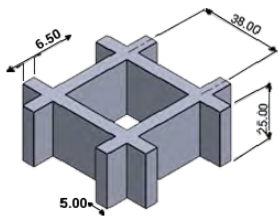
Typically stocked item



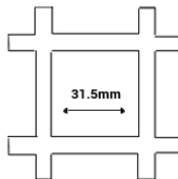
6.0 kg/m²



FM-38x38x25



ISOMETRIC VIEW



PLAN VIEW



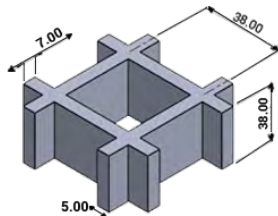
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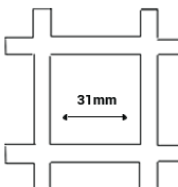
12.3 kg/m²



FM-38x38x38



ISOMETRIC VIEW



PLAN VIEW



Typically stocked item

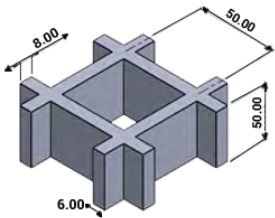


19.5 kg/m²

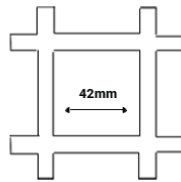


Moulded Grating Products

FM-50x50x50



ISOMETRIC VIEW



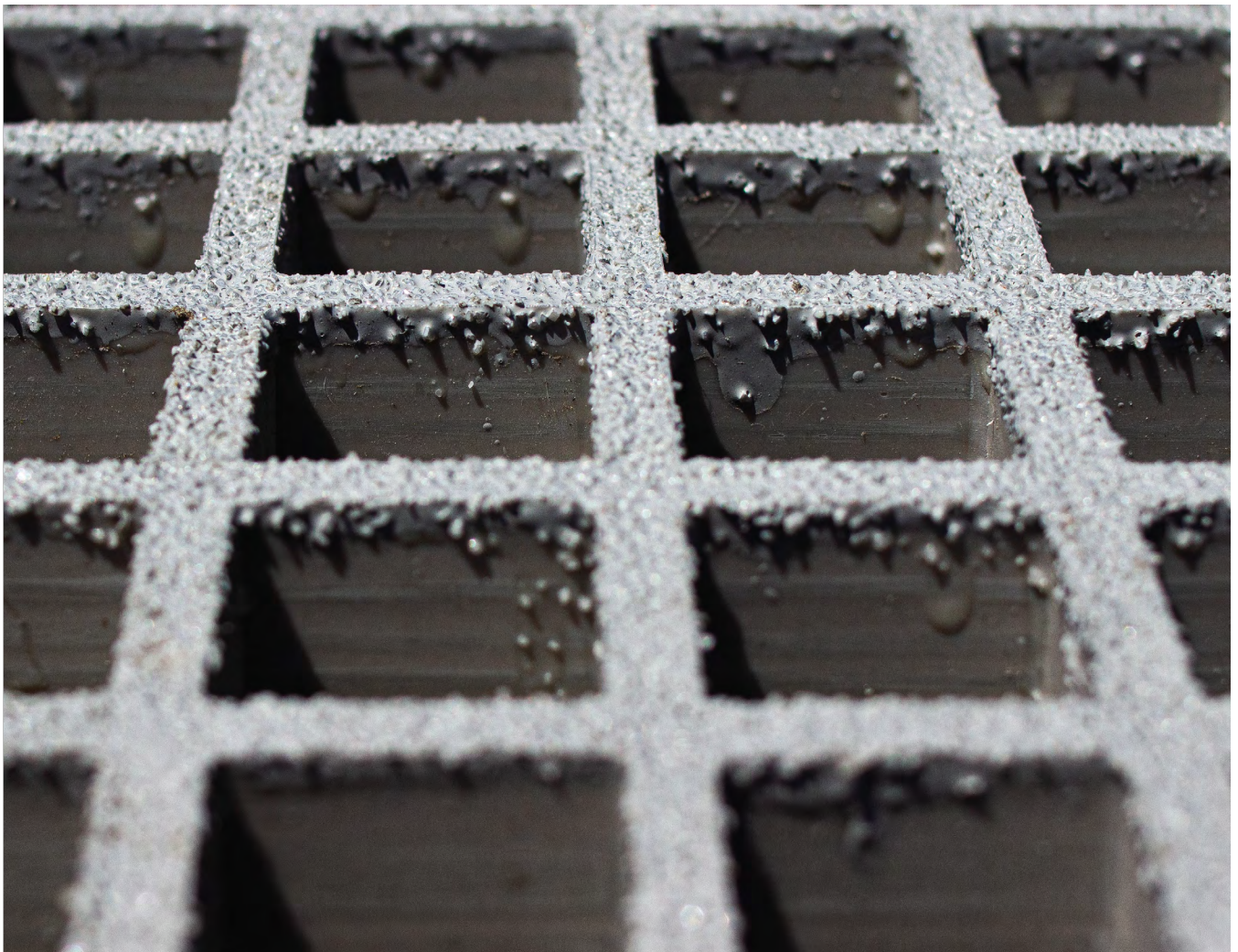
PLAN VIEW



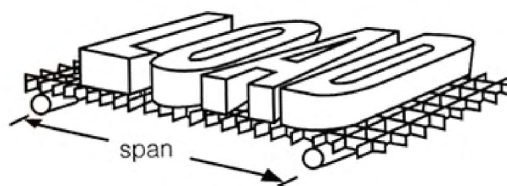
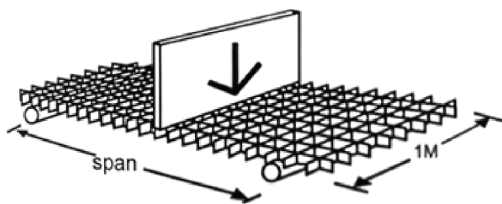
Non Stock Item



23.7 kg/m²



Moulded Grating Load Tables



FM 383825

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Break Point
	0.75	1.5	3.0	4.5	6.0	7.5	
450	0.559	1.146	2.159	3.073	4.115	4.75	39.10
600	1.16	2.32	4.64	6.97	9.29	11.62	29.24
900	3.92	7.84	12.116	18.44	19.82	20.77	19.48
1200	9.29	18.5	15.33	23.54	25.52	27.98	14.61

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa					
	2.4	4.8	9.8	14.5	24.5	36.5
450	0.66	1.092	1.93	2.769	4.47	6.579
600	1.118	2.108	4.14	6.172	10.211	15.265
750	2.667	5.387	10.82	16.28	21.738	29.962
900	5.537	11.176	21.717	23.164	26.547	31.59

FM 383838

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Break Point
	1.50	3.0	4.5	6.0	7.5	15.0	
300	0.356	0.483	0.61	0.762	0.889	1.06	171.16
600	0.66	1.245	1.85	2.464	3.073	8.48	87.18
900	1.803	3.683	5.563	7.417	9.296	13.79	58.17
1200	4.749	9.677	14.63	19.583	21.19		37.55

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa					
	2.4	4.8	9.8	14.5	24.5	36.5
300	0.09	0.19	0.38	0.49	0.78	1.05
600	0.432	0.813	1.549	2.311	3.8354	5.74
900	1.702	3.454	6.959	10.465	17.475	23.25
1200	5.969	12.167	24.511	32.58	38.65	

FM 505050

CONCENTRATION LINE LOAD - DEFLECTION IN mm

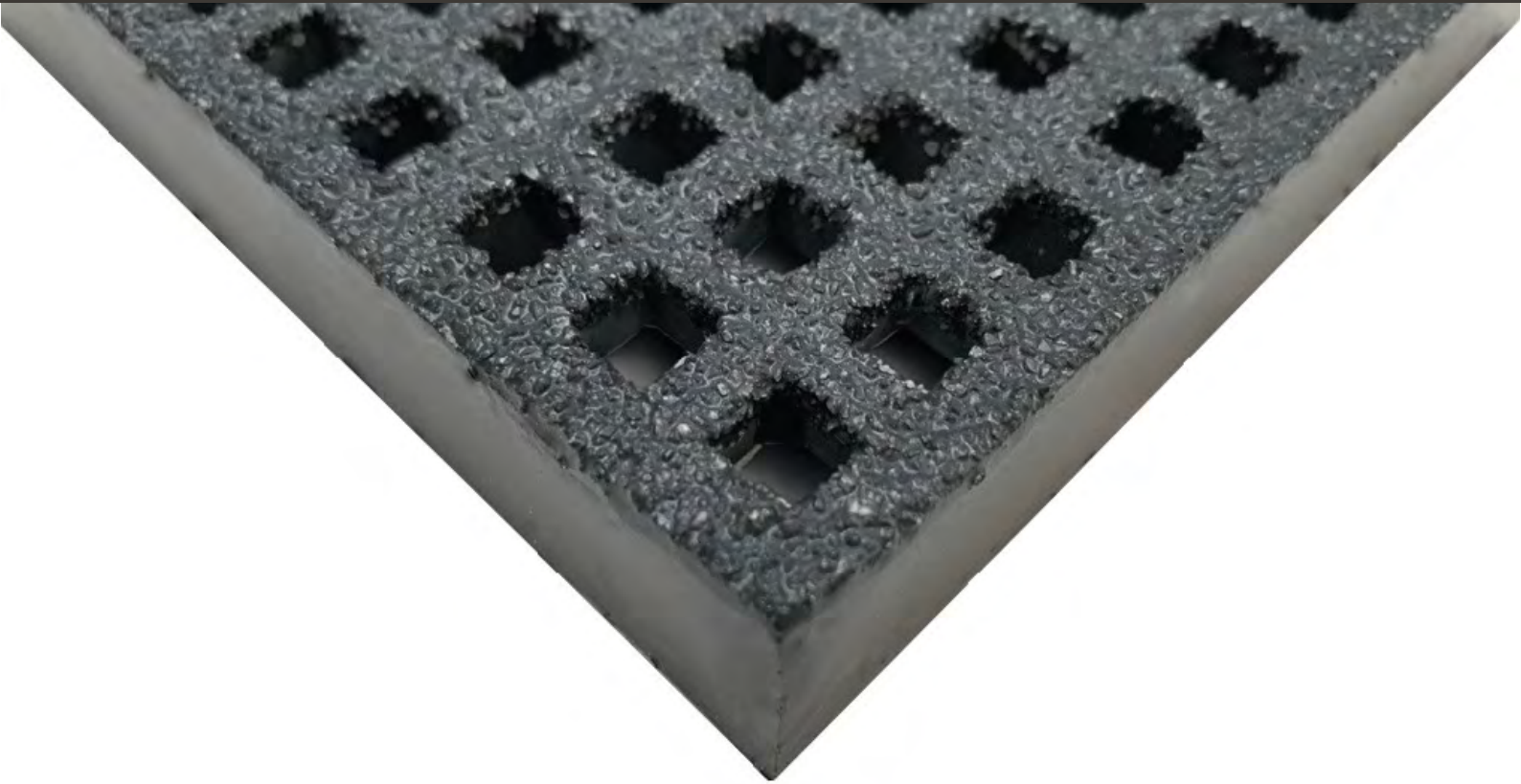
Span (mm)	kN/m						Break Point
	1.50	3.0	4.5	6.0	7.5	15.0	
300	0.305	0.406	0.483	0.635	1.041	1.45	217.27
600	0.508	0.813	1.128	1.753	3.327	4.27	117.13
900	1.118	2.235	3.2	5.156	6.58	13.46	77.80
1200	1.33	2.61	5.98	9.95	11.92		58.34

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa					
	2.4	4.8	9.8	14.5	24.5	36.5
300	0.254	0.279	0.33	0.381	0.483	0.737
600	0.381	0.584	0.965	1.372	2.134	4.115
900	1.194	2.108	3.937	5.766	9.449	18.593
1200	2.413	4.928	9.957	14.961	16.81	21.575



Mini and Micro Mesh Grating



TerraGrate® Mini Mesh Grating is a great alternative to steel mesh grating. It has all the benefits of our standard FRP Moulded Grating.

The Mini Mesh grating is specially designed for applications where solid flooring is not permitted due to airflow requirements. The openings must be small enough to prevent objects from falling through.

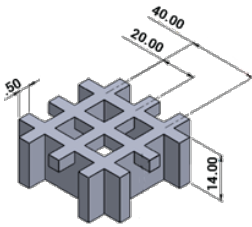
TerraGrate® Mini Mesh has been tested to Australian and International standards and provides excellent slip-resistance in wet, oily, and icy conditions.

Its special features also include: unobstructed airflow, smoother rolling or walking surface, meets accessibility requirements under BCA Disability Code AS1428-2001, meets workplace safety standard AS1667-2018 clause 4.5, overhead safety and protection from falling objects, flame spread index of 25 or less as per ASTM E-84, UV and Fire Retardant, and suits aggressive, extreme, or corrosive environments,

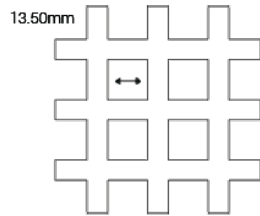


Mini Mesh Products

FM-Mini 20/20 40x40x14



ISOMETRIC VIEW



PLAN VIEW



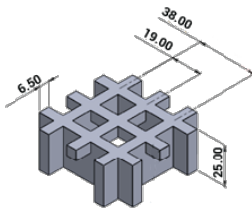
Typically stocked item



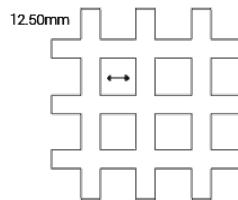
10.5 kg/m²



FM-Mini 19/19 38x38x25



ISOMETRIC VIEW



PLAN VIEW



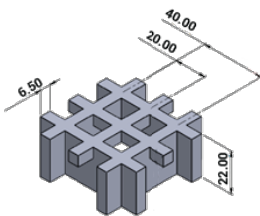
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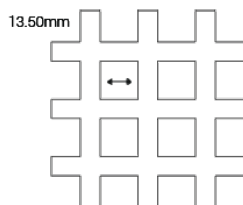
16.8 kg/m²



FM-Mini 20/20 40x40x22



ISOMETRIC VIEW



PLAN VIEW



Typically stocked item

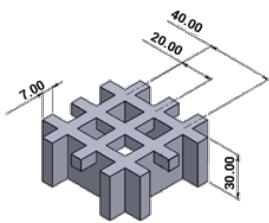


14.8 kg/m²

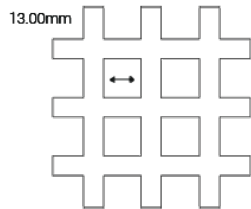


Mini Mesh Products

FM-Mini 20/20 40x40x30



ISOMETRIC VIEW



PLAN VIEW



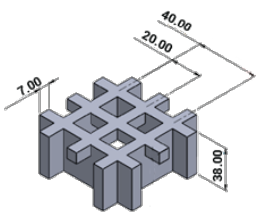
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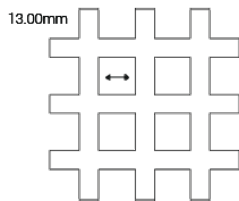
18.3 kg/m²



FM-Mini 20/20 40x40x38



ISOMETRIC VIEW



PLAN VIEW



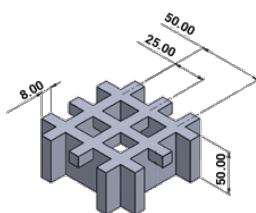
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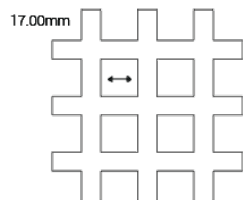
23.2 kg/m²



FM-Mini 25/25 50x50x50



ISOMETRIC VIEW



PLAN VIEW



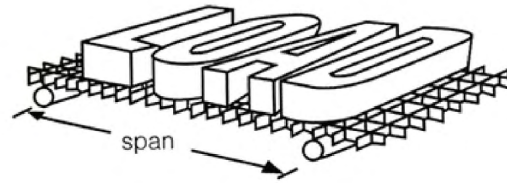
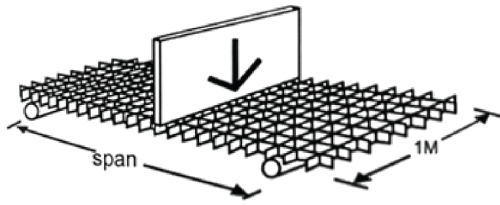
Non Stock Item



28.5 kg/m²



Mini Mesh Load Tables



FM Mini 19/19 383825

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Break Point
	0.75	1.5	3.0	4.5	6.0	7.5	
450	0.559	1.146	2.159	3.073	4.115	4.75	39.10
600	1.16	2.32	4.64	6.97	9.29	11.62	29.24
900	3.92	7.84	12.116	18.44	19.82	20.77	19.48
1200	9.29	18.5	15.33	23.54	25.52	27.98	14.61

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa					
	2.4	4.8	9.8	14.5	24.5	36.5
450	0.66	1.092	1.93	2.769	4.47	6.579
600	1.118	2.108	4.14	6.172	10.211	15.265
750	2.667	5.387	10.82	16.28	21.738	29.962
900	5.537	11.176	21.717	23.164	26.547	31.59

FM Mini 20/20 404022

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m					Break Point
	0.75	1.5	3.0	4.5	7.5	
300	0.254	0.508	1.016	1.524	2.54	44.70
450	0.762	1.524	3.302	4.826	8.128	29.80
600	1.778	3.81	7.62	11.176	15.263	22.35
750	2.794	5.588	11.43	17.685	21.134	17.88
900	5.334	10.668	15.385	21.241	26.583	14.90

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Break Point
	3.5	5.0	7.5	10.0	15.0	25.0	
300	<0.254	0.254	0.508	0.508	1.016	1.524	292.80
450	1.016	1.524	2.286	3.048	4.572	7.62	129.80
600	3.084	4.572	7.112	9.398	12.283	14.103	73.20
750	5.842	8.89					40.84
900	7.158						32.26

FM Mini 20/20 404030

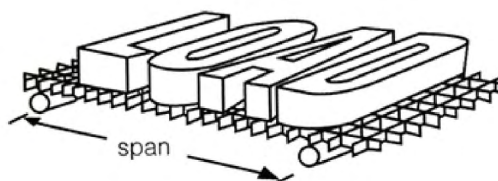
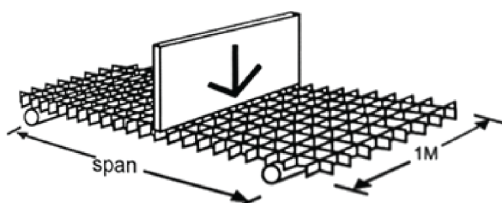
CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Break Point
	0.75	1.5	3.0	4.5	7.5	15.0	
300	<0.254	<0.254	0.254	0.508	0.762	1.524	99.23
450	0.254	0.508	1.016	1.524	2.54	3.92	48.27
600	0.508	1.27	2.286	3.556	5.842	7.38	41.12
750	1.27	2.54	4.826	7.366	12.446	15.98	31.73
900	2.27	4.54	9.08	13.63	18.72	22.05	26.37

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kN/m					
	3.5	5.0	7.5	10.0	15.0	25.0
300	0.29	0.48	0.57	0.75	1.15	1.82
450	0.78	1.19	1.81	2.47	3.54	4.95
600	1.76	2.66	4.28	5.56	8.41	13.19
750	3.48	5.12	8.21	10.95	16.42	
900	5.89	8.81	14.15	18.92		

Mini Mesh Load Tables



FM Mini 20/20 404038

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Break Point
	1.50	3.0	4.5	6.0	7.5	15.0	
300	0.356	0.483	0.61	0.762	0.889	1.06	171.16
600	0.66	1.245	1.85	2.464	3.073	8.48	87.18
900	1.803	3.683	5.563	7.417	9.296	13.79	58.17
1200	4.749	9.677	14.63	19.583	21.19		37.55

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa					
	2.4	4.8	9.8	14.5	24.5	36.5
300	0.09	0.19	0.38	0.49	0.78	1.05
600	0.432	0.813	1.549	2.311	3.8354	5.74
900	1.702	3.454	6.959	10.465	17.475	23.25
1200	5.969	12.167	24.511	32.58	38.65	

FM Mini 25/25 505050

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Break Point
	1.50	3.0	4.5	6.0	7.5	15.0	
300	0.305	0.406	0.483	0.635	1.041	1.45	217.27
600	0.508	0.813	1.128	1.753	3.327	4.27	117.13
900	1.118	2.235	3.2	5.156	6.58	13.46	77.80
1200	1.33	2.61	5.98	9.95	11.92		58.34

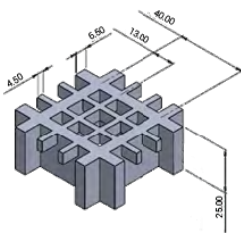
UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa					
	2.4	4.8	9.8	14.5	24.5	36.5
300	0.254	0.279	0.33	0.381	0.483	0.737
600	0.381	0.584	0.965	1.372	2.134	4.115
900	1.194	2.108	3.937	5.766	9.449	18.593
1200	2.413	4.928	9.957	14.961	16.81	21.575

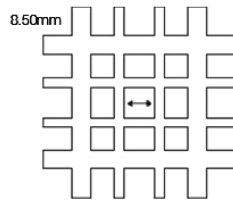


Micro Mesh Products

FM-Micro 13/13 40x40x25



ISOMETRIC VIEW



PLAN VIEW



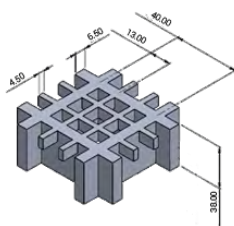
Typically stocked item



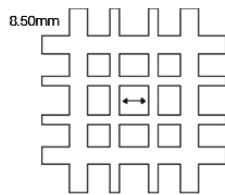
17.8 kg/m²



FM-Micro 13/13 40x40x38



ISOMETRIC VIEW



PLAN VIEW



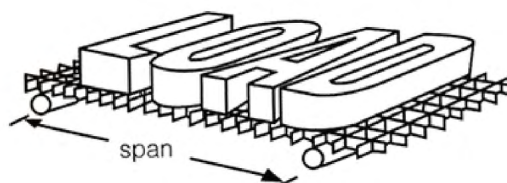
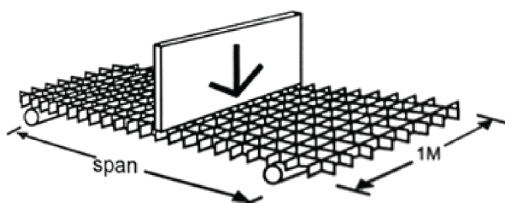
Typically stocked item



23.8 kg/m²



Micro Mesh Load Tables



FM Micro 13/13 404025

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Break Point
	0.75	1.5	3.0	4.5	6.0	7.5	
450	0.559	1.146	2.159	3.073	4.115	4.75	39.10
600	1.16	2.32	4.64	6.97	9.29	11.62	29.24
900	3.92	7.84	12.116	18.44	19.82	20.77	19.48
1200	9.29	18.5	15.33	23.54	25.52	27.98	14.61

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa					
	2.4	4.8	9.8	14.5	24.5	36.5
450	0.66	1.092	1.93	2.769	4.47	6.579
600	1.118	2.108	4.14	6.172	10.211	15.265
750	2.667	5.387	10.82	16.28	21.738	29.962
900	5.537	11.176	21.717	23.164	26.547	31.59

FM Micro 13/13 404038

CONCENTRATION LINE LOAD - DEFLECTION IN mm

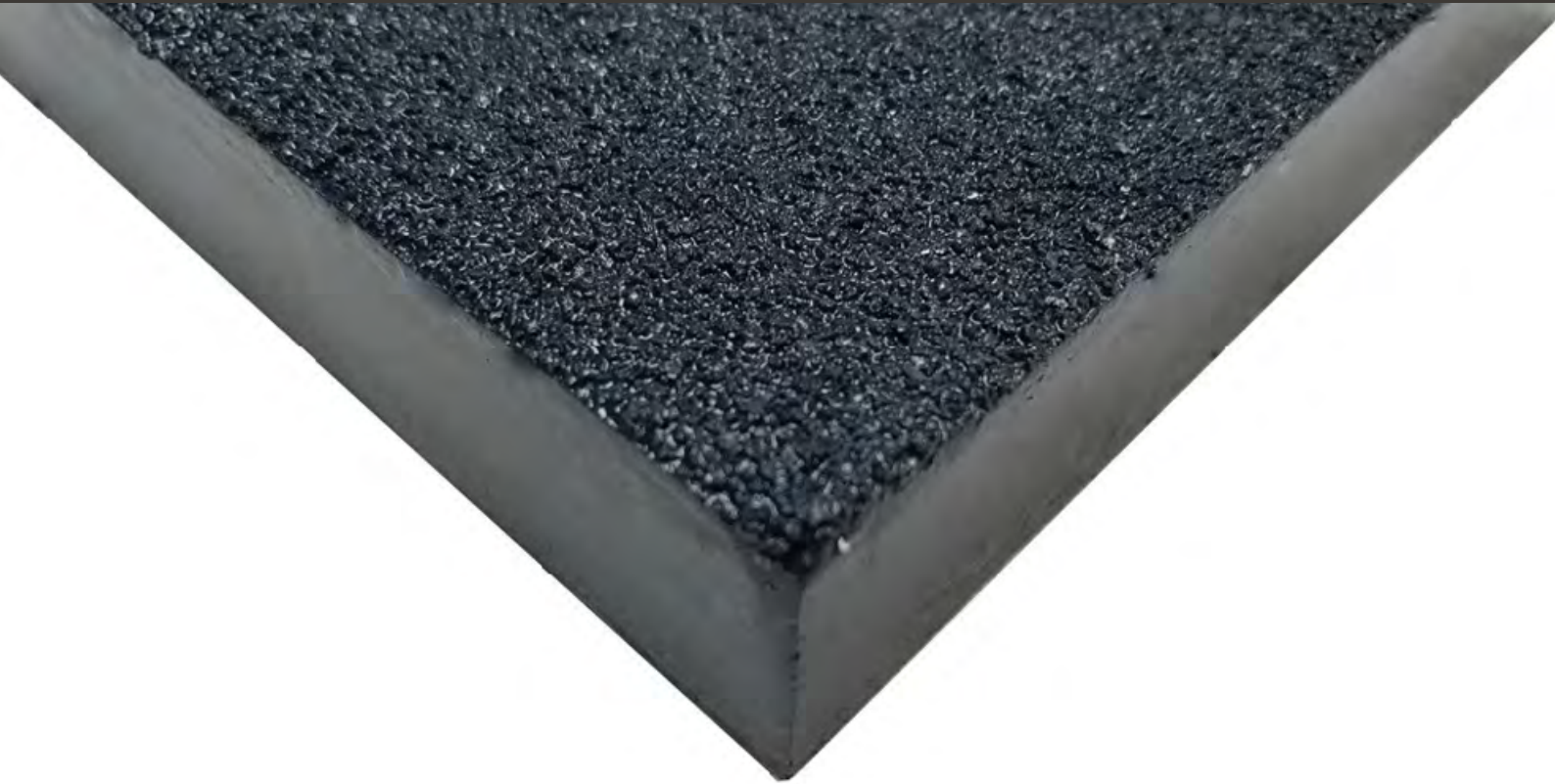
Span (mm)	kN/m						Break Point
	1.50	3.0	4.5	6.0	7.5	15.0	
300	0.356	0.483	0.61	0.762	0.889	1.06	171.16
600	0.66	1.245	1.85	2.464	3.073	8.48	87.18
900	1.803	3.683	5.563	7.417	9.296	13.79	58.17
1200	4.749	9.677	14.63	19.583	21.19		37.55

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa					
	2.4	4.8	9.8	14.5	24.5	36.5
300	0.09	0.19	0.38	0.49	0.78	1.05
600	0.432	0.813	1.549	2.311	3.8354	5.74
900	1.702	3.454	6.959	10.465	17.475	23.25
1200	5.969	12.167	24.511	32.58	38.65	



Solid Top Moulded Grating



TerraGrate® Solid Top Grating is covered mesh that prevents debris falling through the surface. Solid Top Grating's inherent strength comes from the fibreglass structural mesh core.

Solid Top Grating is standard FRP grating reinforced with glass fibre plates applied to one or both load bearing surfaces, this also provides 50% higher stiffness than that of open mesh gratings.

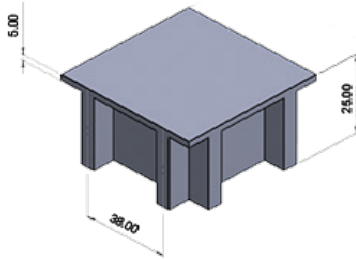
It has exceptional slip resistance, tested to AS 4586-2013 requirements.

TerraGrate® Solid Top FRP grating is suitable for a variety of applications such as: Industrial, Pedestrian Gangways, Access Walkways, Disability Access Ramps, Food Facilities, Pipes and Cable Service Duct Covers, and Wet Areas.



Solid Top Grating Products

FM-ST38x38x25+5



ISOMETRIC VIEW



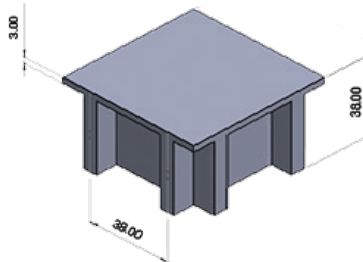
Typically stocked item



19.0 kg/m²



FM-ST38x38x38+3



ISOMETRIC VIEW



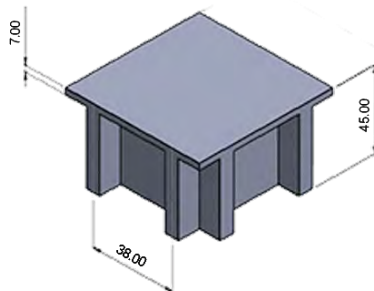
Typically stocked item



22.3 kg/m²



FM-ST38x38x38+7



ISOMETRIC VIEW



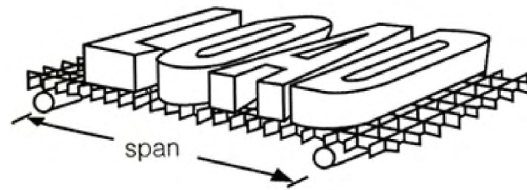
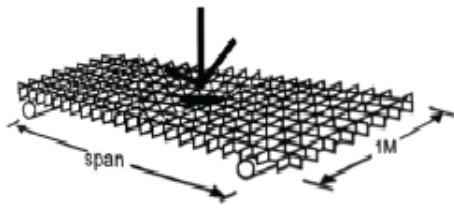
Typically stocked item



32.8 kg/m²



Solid Top Grating Load Tables



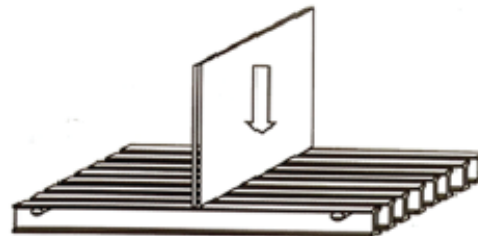
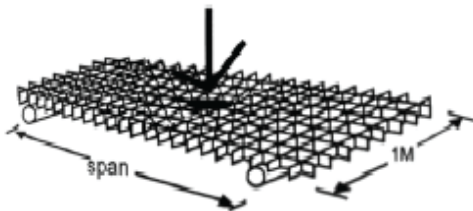
FM ST 383838+3

CONCENTRATION POINT LOAD - DEFLECTION IN mm

Span (mm)	kN							
	1.50	2.5	3.0	4.5	6.0	7.5	10	15
600	0.99	1.4	1.67	2.49	2.97	3.52	4.49	5.99
900	1.45	2.49	2.98	2.51	5.99	7.51	10.33	14.42

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa			
	2.5	4	5	7.5
600	0.17	0.24	0.32	0.48
1000	1.12	2.1	2.51	3.67
1200	2.51	4.11	5.12	
1400	4.57	7.52		



FM ST 383825+5

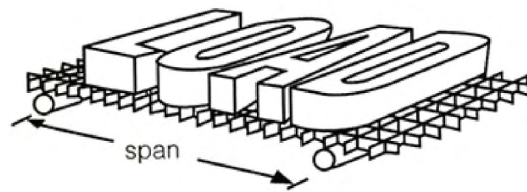
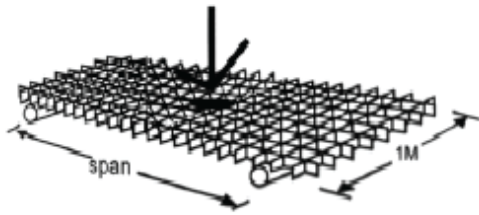
CONCENTRATION POINT LOAD - DEFLECTION IN mm

Span (mm)	kN		
	5	8	10
1000	8.34	13.64	17.18

CONCENTRATED LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m		
	5	8	10
1000	8.7	14.48	18.52

Solid Top Grating Load Tables



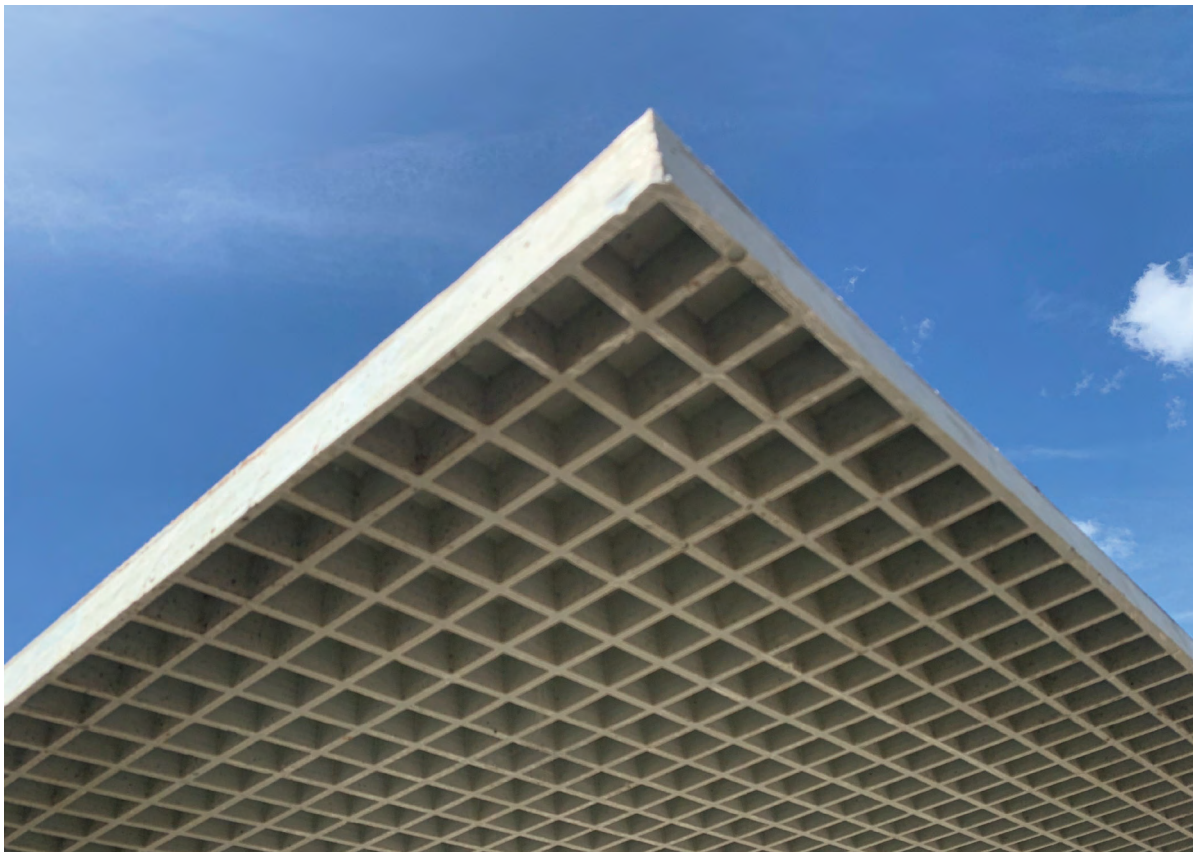
FM ST 383838+7

CONCENTRATION LINE LOAD - DEFLECTION IN mm

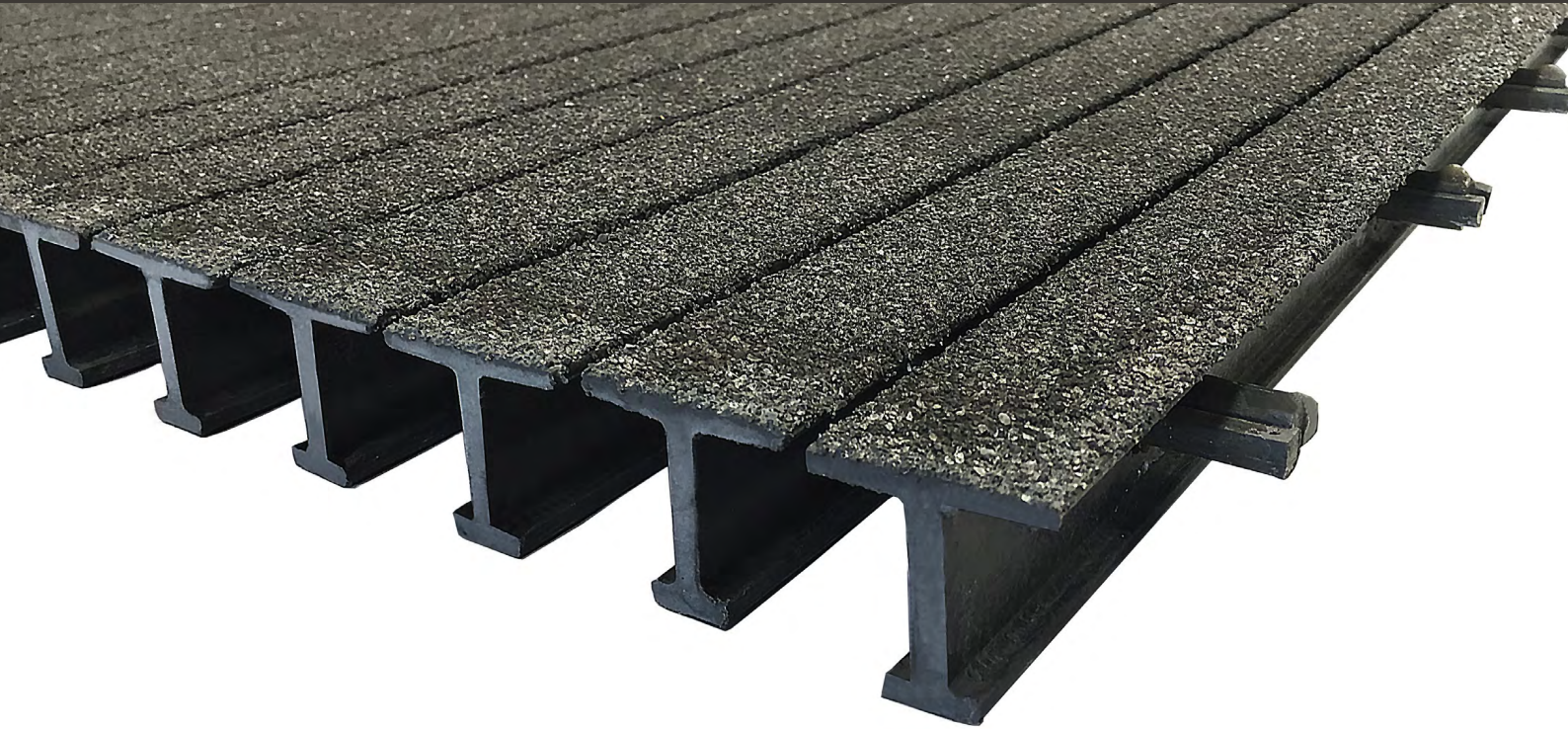
Span (mm)	kg/m						
	150	300	450	600	750	1000	1500
300	0.98	1.11	1.69	1.98	2.23	2.56	2.98
600	1.10	1.64	2.06	2.43	2.68	3.20	4.10
900	1.47	2.43	3.14	3.85	4.30	5.52	7.63
1200	2.41	3.99	5.45	6.86	8.24	10.70	

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kg/m ²						
	240	480	980	1450	2450	3650	4880
600	0.5	0.82	1.33	1.68	2.20	2.72	3.53
900	1.23	1.65	2.68	3.38	5.50	7.70	10.39
1200	2.00	3.62	6.83	10.43	18.20		



Pultruded Grating



TerraGrate® Pultruded Grating is made from a matrix of high strength pultruded bars, and is ideal for replacing aluminum and steel grating in corrosive environments.

Pultruded Grating is designed for use where longer, stronger, weight-bearing support spans are required.

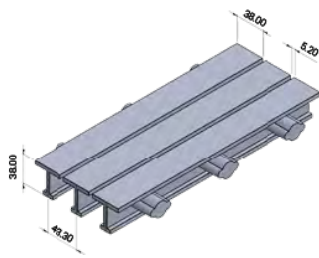
TerraGrate® FRP Pultruded Grating is manufactured by assembling structural fiberglass bearing bars into a sheet structure. The bar's structural shape is made by a pultrusion process to include T, I, and square (H) beams.

Pultruded grating is ideal for use where more specific weight-bearing properties are required such as industrial projects with common applications in walkways, platforms, trenches, catwalks, ramps, boat docks etc.

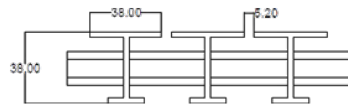


Pultruded Grating Products

FP-T1215



ISOMETRIC VIEW



PLAN VIEW



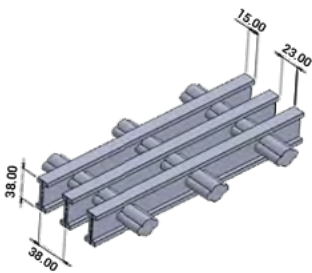
Non Stock Item



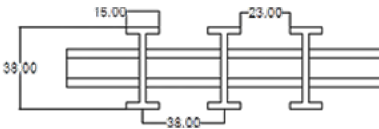
19.6 kg/m²



FP-I6015



ISOMETRIC VIEW



PLAN VIEW



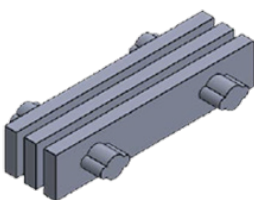
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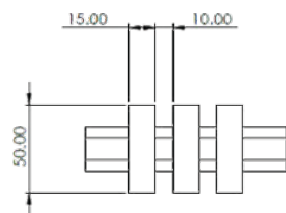
16.1 kg/m²



FP-HL4020



ISOMETRIC VIEW



PLAN VIEW



Non Stock Item

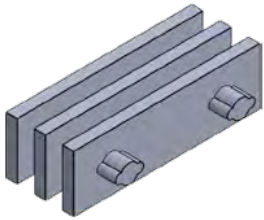


62.8 kg/m²

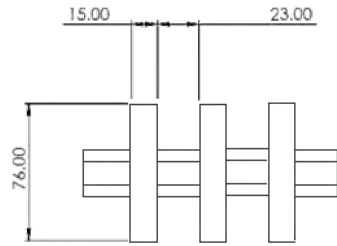


Pultruded Grating Products

FP-HL4030



ISOMETRIC VIEW



PLAN VIEW



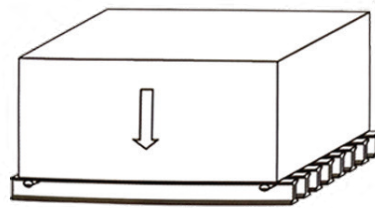
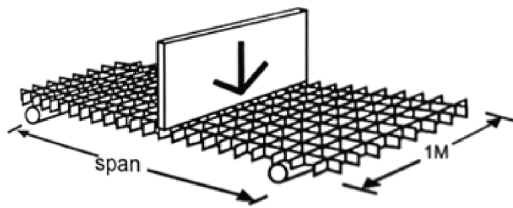
Non Stock Item



63.0 kg/m²



Pultruded Grating Load Tables



FP T1215

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Max Load
	1.5	3.0	4.5	7.5	15.0	30.0	
450	<0.254	0.254	0.254	0.508	1.016	1.778	87.91
600	<0.254	0.254	0.508	0.762	1.778	3.556	70.328
900	0.508	1.016	1.524	2.794	5.334	10.668	46.786
1200	1.27	2.54	3.555	6.096	12.192		35.164

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa/m2						Max Load
	4.5	9.5	14.5	24.0	48.5	95.0	
450	<0.254	0.254	0.254	0.508	1.016	1.778	192.272
600	0.254	0.508	0.762	1.016	2.286	4.318	143.96
900	1.016	2.032	3.048	5.08	10.16		96.136
1200	3.048	6.096	9.144				57.584

FP I6015

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m						Max Load
	3.0	4.5	7.5	15.0	30.0	59.5	
450	0.19	0.29	0.51	0.96	2.03	3.81	174.72
600	0.51	0.76	1.02	2.29	4.32	8.38	131.08
900	1.57	2.33	3.89	7.11	14.56	25.15	84.60
1200	2.79	4.32	7.11	14.22	28.55	56.9	60.47

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa/m2						Max Load
	10.0	19.0	39.0	70.0	95.0	195.0	
450	0.45	0.75	1.56	2.97	3.78	6.56	764.30
600	0.91	1.82	3.78	6.83	8.57	14.89	430.04
900	3.29	6.06	9.87	18.7			185.70
1200	7.6	14.95					99.20

FP HL4020

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m								
	1.5	3.0	4.5	7.5	15.0	30.0	45.0	60.0	75.0
600	0.03404	0.06807	0.0851	0.1532	0.3063	0.5956	0.90195	1.1914	1.4977
750	0.0511	0.1021	0.1702	0.2723	0.5446	1.0892	1.6337	2.1954	2.7399
900	0.0851	0.1872	0.2723	0.4595	0.91897	1.8379	2.7399	3.6589	4.5779
1200	0.2212	0.4255	0.7722	1.0721	2.1443	4.2885	6.4328	8.5772	10.7214

UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa/m2								
	4.5	9.5	14.5	24.5	48.5	98.0	145.0	195.0	244.0
600	0.03404	0.0681	0.11913	0.1872	0.3744	0.7489	1.1232	1.4976	1.85496
750	0.0851	0.1702	0.2553	0.4255	0.8509	1.7019	2.5697	3.4206	4.2715
900	0.1702	0.3404	0.51054	0.8509	1.7188	3.4377	5.1394	6.8583	8.57707
1200	0.5446	1.07213	1.6167	2.6888	5.3607	10.7214			

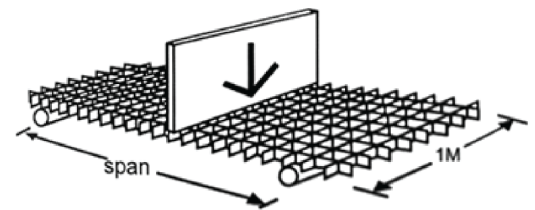


Pultruded Grating Load Tables

FP HL4030

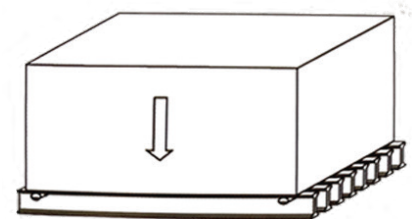
CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN/m										Max Load	
	1.5	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0		
400	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	0.34	348
600	<0.3	<0.3	<0.3	<0.3	0.41	0.54	0.68	0.81	0.95	1.09	1.09	247
800	<0.3	<0.3	0.3	0.6	0.91	1.21	1.51	1.81	2.12	2.42	2.42	196
1000	<0.3	<0.3	0.56	1.11	1.67	2.23	2.79	3.34	3.9	4.46	4.46	166
1200	<0.3	0.46	0.91	1.82	2.73	3.65	4.56	5.47	6.38	7.29	7.29	146
1400	<0.3	0.69	1.37	2.75	4.12	5.49	6.87	8.24	9.62	10.99	10.99	131
1600	<0.3	0.98	1.95	3.9	5.85	7.8	9.76	11.71				120
1800	0.42	1.38	2.77	5.54	8.31	11.08						109
2000	0.6	1.9	3.8	7.6	11.4							100
2200	0.76	2.52	5.04	10.08								91
2400	0.98	3.27	6.54									83



UNIFORM LOAD - DEFLECTION IN mm

Span (mm)	kpa/m2										Max Load	
	5.0	7.5	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0		
400	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1742
600	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	824
800	<0.3	<0.3	<0.3	<0.3	0.3	0.38	0.45	0.53	0.6	0.68	0.68	492
1000	<0.3	<0.3	0.35	0.52	0.7	0.87	1.05	1.22	1.39	1.57	1.57	332
1200	0.34	0.51	0.68	1.03	1.37	1.71	2.05	2.39	2.73	3.08	3.08	243
1400	0.6	0.9	1.2	1.8	2.4	3	3.61	4.21	4.81	5.41	5.41	188
1600	0.98	1.46	1.95	2.93	3.9	4.88	5.85	6.83	7.8	8.78	8.78	151
1800	1.56	2.34	3.11	4.67	6.23	7.79	9.34	10.9	12.46			121
2000	2.37	3.55	4.73	7.1	9.46	11.83						100
2200	3.46	5.2	6.93	10.39								83
2400	4.91	7.36	9.81									69



Trench Deck



TerraGrate® FRP Trench Deck is a one-piece trench cover, 500mm width and 40mm thick which creates an interlocking anti-slip flooring system.

TerraGrate® FRP Trench Deck has a unique self-locking structure allows the formation of a continuous closed plane. The tongue and groove joint along the length of the plank gives a firm, sealable joint between profiles.

Benefits include resistance to corrosion and chemicals, high tensile strength, cost effective, robust and sustainable. It is used effectively in the water industry as odour control covers, or to prevent water penetration in potable and waste water treatment plants.

Trench Deck Load Table

CONCENTRATION LINE LOAD - DEFLECTION IN mm

Span (mm)	kN									
	5	15	20	25	30	35	40	45	50	
600		2.9	3.9	4.8	5.7	6.6	7.5	8.5	9.4	
900	2.5	5.5	11.2	14	16.8	19.8	22.5	25.6	28.5	
1200	4.4	16.6	23.2	29.5	36	42.8	49.7			




FRP Accessories

	Measurements (mm)	TerraGrate Code	Description
	Suitable for 38x38x25mm Grating	FACC-MC383825	<p>M-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Suitable for 38x38x25
	Suitable for 38x38x38mm Grating	FACC-MC383838	<p>M-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Suitable for 38x38x38 Grating
	Suitable for 50x50x50mm Grating	FACC-MC505050	<p>M-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Suitable for 50x50x50 Grating
	Suitable for Mini Mesh 19/19	FACC-MC1919	<p>M-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • 19/19 Mini-Mesh Grating
	Suitable for Mini Mesh 20/20 40x40x22mm	FACC-MC2020	<p>M-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • 20/20 40x40x22mm Mini-Mesh Grating
	Suitable for Mini Mesh 20/20 40x40x30mm / 40x40x38mm	FACC-MC2020	<p>M-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • 20/20 40x40x30/38mm Mini-Mesh Grating



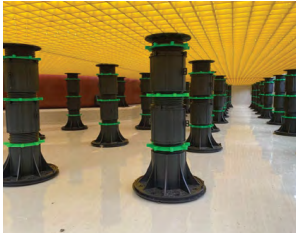


FRP Accessories

Accessories	Measurements (mm)	TerraGrate Code	Description
	Suitable for Pultruded or to similar grating only	FACC-RD25+5	<p>Round Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Special clip for pultruded or similar grating
	Suitable for Pultruded or to similar grating only	FACC-SCT1215	<p>Pultruded Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Special clip for pultruded or similar grating
	Suitable for 38x38x25mm Grating	FACC-CC383825	<p>C-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Suitable for 38x38x25mm Grating
	Suitable for 38x38x38mm Grating	FACC-CC383838	<ul style="list-style-type: none"> • 316 Grade Stainless • Suitable for 38x38x38mm Grating
	Suitable for 50x50x50mm Grating	FACC-CC505050	<p>C-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Suitable for 50x50x50mm Grating
	Suitable for 38x38x25mm, 38x38x38mm, 50x50x50mm Grating	FACC-GC383825 / 383838 / 505050 / 1919/2020	<p>G-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Suitable for 50x50x50mm Grating



FRP Accessories

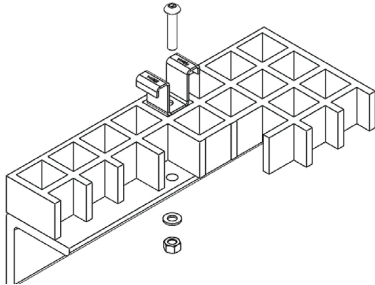
Accessories	Measurements (mm)	TerraGrate Code	Description
	Suitable for 38x38x25mm, 38x38x38mm, 50x50x50mm, 19/19 Mini-Mesh and 20/20 Mini-Mesh Grating	FACC-JC383825 / 383838 / 505050 / 1919/2020	<p>J-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Suitable for 38x38x25, 28x38x38, 50x50x50mm Gratings • 19/19 Mini-Mesh, 20/20 Mini-Mesh Grating
	Suitable for 38x38x25mm, 38x38x38mm, 50x50x50mm Grating	FACC-SC383825 / 383838 / 505050	<p>Square-Clips</p> <ul style="list-style-type: none"> • 316 Grade Stainless • Suitable for 38x38x25, 28x38x38, 50x50x50mm Grating
	Suitable for all TerraGrate range	FPPAFP01 -02 / FPPAT0 - T0-F / FPPAT1 - T6	See TerraGrate Pedestals Catalogue for full range from 12.5mm to 1280mm high



FRP Accessories

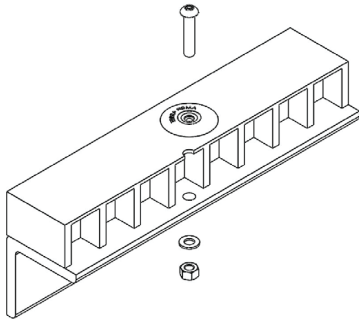
Accessories

Description



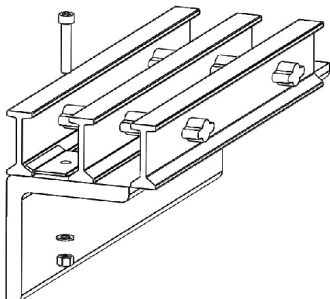
M-Clips

Using two of the grating's adjacent bars, M clips are utilised to secure the grating to a support or joist. Because of their exceptional holding capacity, they secure the grating very firmly. These type of clips are recommended for most applications.



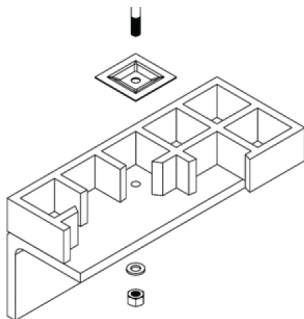
Round Clips

With its smooth surface design and direct substrate fixation, the round recessed washer clip is a great option. These medium-duty circular recessed washer clips are advised for use in locations where movement is restricted to the pedestrians only. These are suitable for Micro mesh and Solid Top FRP Grating.



Pultruded Clips

These are unique clips made exclusively to fit pultruded or similar types of grating. The clips must be positioned between the bottom flanges of the 2 adjacent load-bearing bars before being bolted to the sub-structure. As a result, the grating will be securely fastened to the substructure.



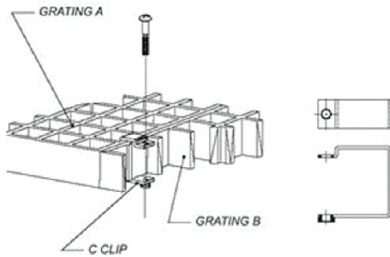
Square-Clips

The clips are made of Type 316 stainless grade steel and are suitable for square mesh grating



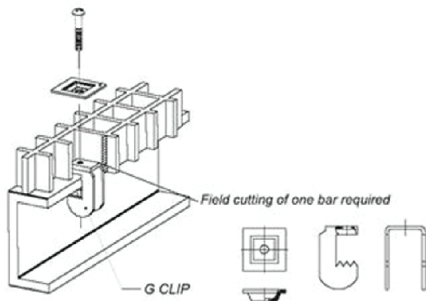
FRP Accessories

Accessories	Description
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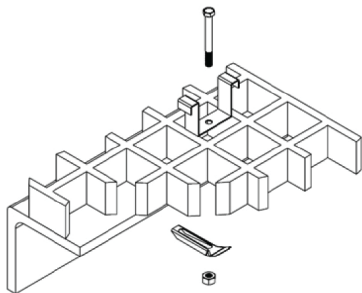
C-Clips

The clips are made of Type 316 stainless grade steel and are suitable for square mesh grating.



G-Clips

The clips are made of Type 316 stainless grade steel. G Clip Clamp underside, assembly combination with square clip.



J-Clips

The clips are made of Type 316 stainless grade steel. J Clip Clamp underside, assembly combination with M Clip, applied for square mesh grating and mini mesh grating.



Standard Colours

Light Grey RAL 7035

C:20 M:10 Y:15 K:5

R:197 G:199 B:196

Dark Grey RAL 7015

C:45 M:30 Y:15 K:70

R:79 G:83 B:88

Black RAL 8022

C:100 M:50 Y:30 K:100

R:26 G:23 B:24

Yellow RAL 1003

C:0 M:35 Y:100 K:0

R:249 G:168 B:0

Dark Green RAL 6032

C:90 M:10 Y:80 K:10

R:35 G:127 B:82

(STOCKED AS STANDARD, ALSO AVAILABLE FOR ORDER IN CUSTOM COLOURS ON REQUEST)



Resistance Table

FRP Moulded Grating - Resin System

Resin Type	Resin Base	Description	Corrosion Resistance	Flame Spread Rating ASTM E84	Max. Oper. Temp
Type VEFR-25	Vinyl Ester	Superior Corrosion Resistance and Fire Retardant	Excellent	Class 1, 25 or less	230°F (110°C)
Type VEFR-10	Vinyl Ester	Superior Corrosion Resistance and Enhanced Fire Retardant	Excellent	Class 1, 10 or less	230°F (110°C)
Type IFR-25	Isophthalic Polyester	Industrial Grade Corrosion Resistance and Fire Retardant	Very Good	Class 1, 25 or less	221°F (105°C)
Type IFR-10	Isophthalic Polyester	Industrial Grade Corrosion Resistance and Extra Fire Retardant	Very Good	Class 1, 25 or less	221°F (105°C)
Type VEFR-25	Isophthalic Polyester	Superior Corrosion Resistance and Fire Retardant	Very Good	Class 1, 10 or less	221°F (105°C)
Type CFR-25	Ortho	Moderate Corrosion Resistance and Fire Retardant	Moderate	Class 1, 25 or less	212°F (100°C)
Type O-AN	Ortho	Moderate Corrosion Resistance	Moderate	No	212°F (100°C)
Type MP-5	Phenolic Resin	Low Smoke and Superior Fire Resistance	Very Good	Class 1, 5 or less	356°F (180°C)

Type of Fiberglass Roving

Code Name	Type	Occasion Applicable
E	E-glass	High strength & high corrosion required (Standard Product)

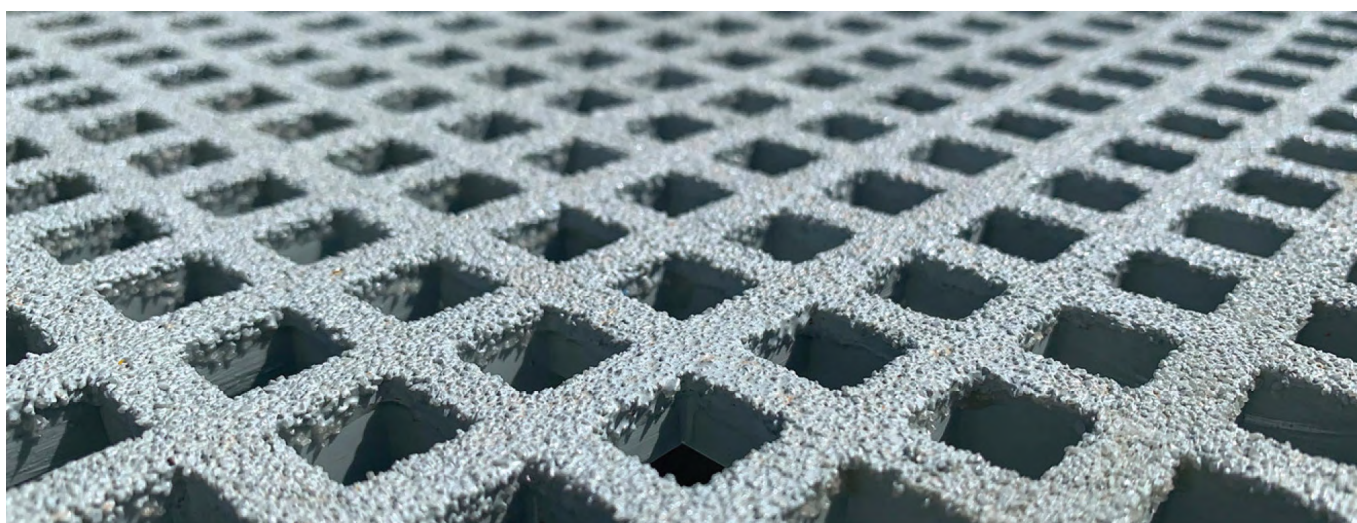
Type of Filler

Code Name	Type	Occasion Applicable
ATH	Aluminium Hydroxide	Fire resistant, smoke suppression & high corrosion required
PR	No Filler, Pure Resin	High corrosion required

FRP - Steel Comparison

Properties	TerraGrate FRP Grating	Galvanised Steel	Stainless Steel
Life Span	High	Moderate	Moderate
Installation cost	Low	Moderate	Moderate
Life cycle cost	Low	High	High
Strength to Weight ratio	High	Low	Low
Light weight	High	Low	Low
Corrosion Resistance	Very High	Moderate	High
Chemical Resistance	High	High	Moderate
Electrical Conductivity	Very Low	High	High
EMI / RFI Transparency	High	N/A	N/A
Difficulty of handling	Very Easy	Difficult	Difficult
Anti-Slip	Available	N/A	N/A
Colour Range	Available	N/A	N/A

• CHEMICAL RESISTANCE CHART IS AVAILABLE UPON REQUEST



About Terra Firma Industries

At Terra Firma, we imagine infrastructure differently.



Imagine halving time to deploy,
Imagine lowering capital costs by up to 60%,
Imagine infrastructure that lasts up to 10 times longer across its whole-of-life,
Imagine reducing OH&S incidents 200 fold versus traditional alternatives.

For over 30 years Terra Firma have led the transition from heavy, traditional materials to create the solution category for smarter, safer and more sustainable pit lid, access cover and FRP grating solutions based on composite designs.

Take a look next time you're walking past your favourite restaurant, enjoying the scenery in your local park,

launching a boat at your marina, refuelling your car at the local service station or performing a maintenance call at your water of energy utility, with hundreds of locations and thousands of deployments, chances are you will see Terra Firma in action.

From custom designs to pre-engineered solutions, our dedicated team provide you the tools, expertise and support to help engineers, project managers and operators reduce costs, save time and lower OH&S risk.

We're not just supplying advanced materials and technologies – at Terra Firma we're setting the standards for how they will be deployed into the future.



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