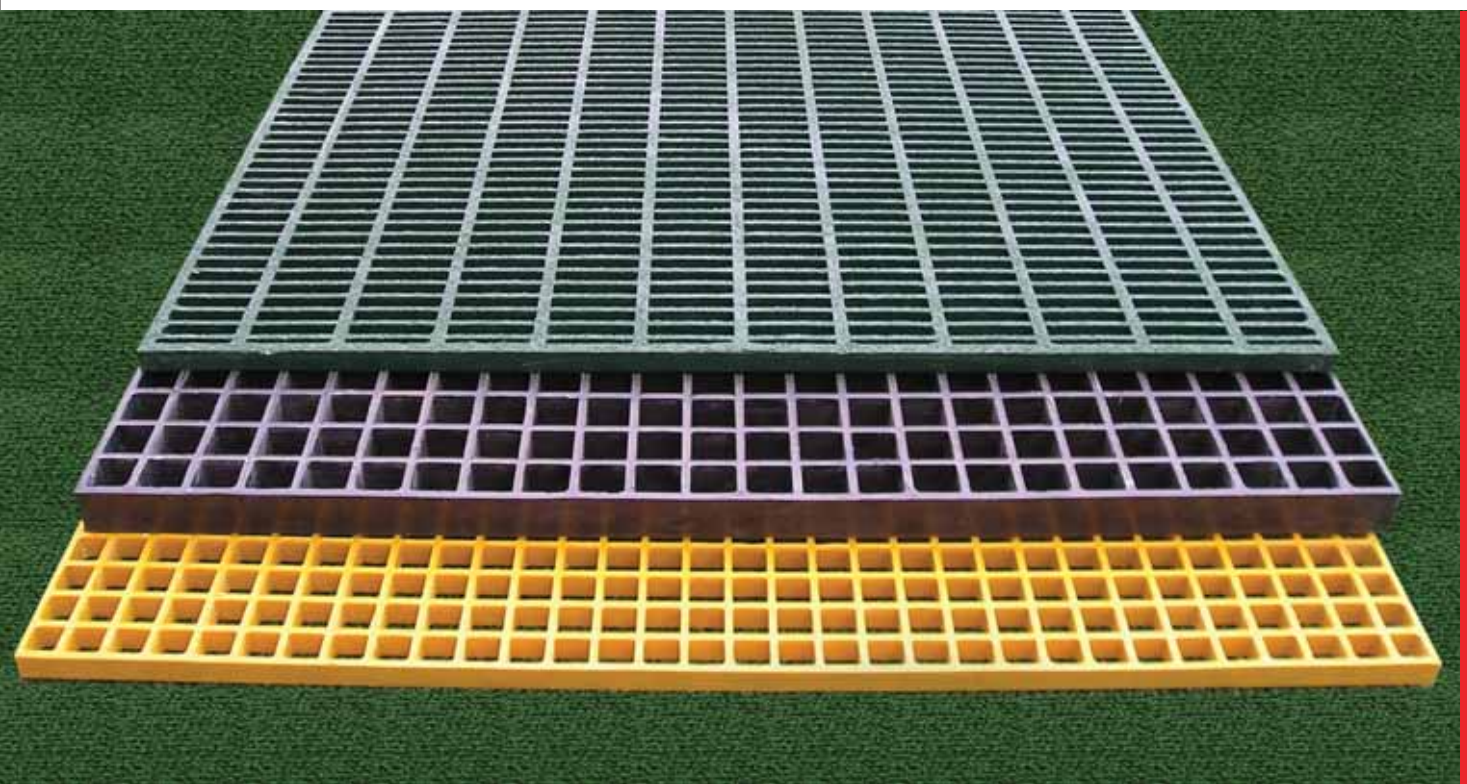


HIGH PERFORMANCE COMPOSITE SOLUTIONS



- | Corrosion Resistant
- | High Strength-to-Weight Ratio
- | Long Service Life
- | Fire Retardant
- | Slip & Impact Resistant
- | Nonconductive
- | Superior Ergonomics

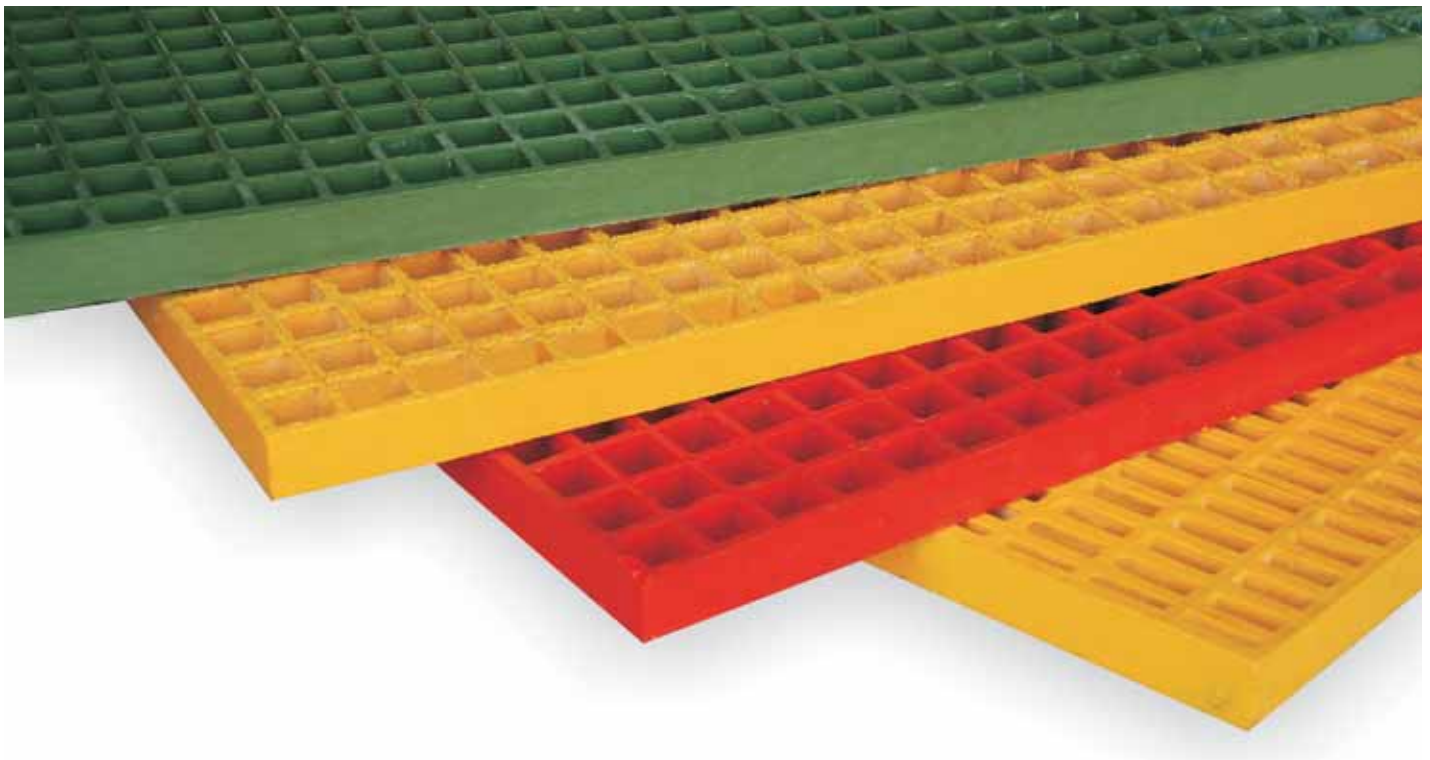
Top Glass

Since 1963, Top Glass has adopted a unique approach to the world of fibre reinforced pultruded composites. During our 45 years history, we have developed an outstanding range of composites solutions calling upon our professionalism and expertise to meet the challenges and opportunities offered by our valued customers. In doing so, we have created an important and viable alternative to profiles that are made using traditional materials.

Today Top Glass operates from two sites close to Milan (Italy), one in Osnago (14.000sqm) and the other in Pioltello (8.000sqm). We have developed a highly impressive production capacity and dynamically undertake all new challenges by designing complex sections and moulds in our own tool shop and choosing the exact material mixes to meet all requirements.

In 2008 Top Glass became part of the Kemrock™ Global Composite Village™.

Kemrock is India's leading composites processor, having manufacturing capability in all the major process techniques, as well as establishing strategic alliances with global leaders in the composites world. Our technical excellence combined with the manufacturing power of Kemrock means that the highest quality products are now available from one of the world's leading composites groups.



TopGrid® Composite Moulded Gratings

Renowned for their high strength, corrosion resistance in the harshest environments, long life and safety, TopGrid® Moulded Gratings meet the highest international standards. Produced from ten carefully selected resin systems, TopGrid® is designed to deliver many years of reliable service, outperforming the traditional materials they replace.

TopGrid® Gratings are lightweight, easy to fabricate and install. Their acceptance in many major industries has made them the first choice over steel, not only for their performance but cost competitiveness. Comparable with steel at the installed cost stage, their low maintenance and long life means a significantly lower life cycle cost than that of steel.

A complete range of gratings is available to satisfy general industrial needs, high load requirements, forklift traffic as well as small mesh grades to meet falling object requirements thus ensuring worker safety. Solid floor solutions as well as stair treads, complimented with TopRail handrail systems enable complete access stairways and work platforms solutions to be provided. TopGrid® satisfies the most demanding applications in a wide range of industrial sectors...

Markets

- Chemical Processing
- Food & Beverage
- Marine
- Oil & Gas
- Power
- Industry
- Buildings
- Construction
- Pharmaceutical
- Metals & Mining
- Pulp & Paper
- Recreation
- Telecommunications
- Shipping
- Transportation
- Water & Waste Treatment
- Architectural



Resin Selection

Selecting TopGrid® Grating is the first step to ensuring a maintenance free flooring solution. Selecting the correct resin ensures the highest performance in the most demanding of circumstances. TopGrid® is available in ten standard grades, including a grade suitable for food contact use, to ensure that the greatest economic advantage is achieved whilst maintaining the highest levels of technical performance.

TopGrid® Resin Range

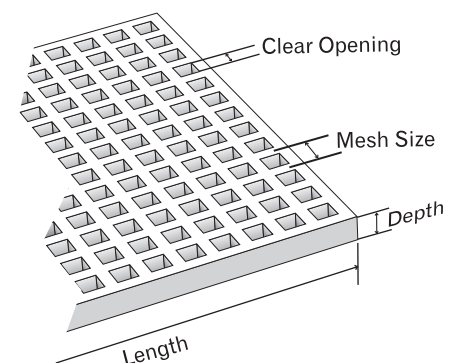
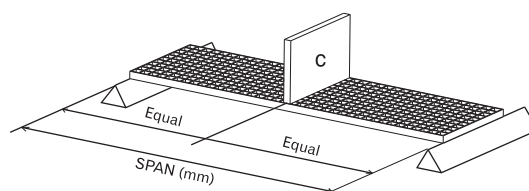
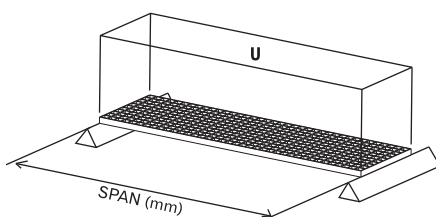
Grade	Description	Fire Performance	Colour
Std	Standard polyester grade for industrial & water/waste water use	ASTM E84 <25	Yellow Dark Grey Dark Green
IsoFR	Fire retardant isophthalic polyester grade for use where also corrosion resistance is important	ASTM E84 <25	Green Dark Grey
Iso	Excellent corrosion resistance in acidic environments : USDA accepted	Non fire retardant	Green
VE	Vinyl ester grade for use in the most extreme corrosive environments	ASTM E84 <25	Natural Tan Beige
VEFR	Fire retardant vinyl ester grade for use where fire performance combined with chemical resistance is required	ASTM E84 <25	Orange Dark Grey
XVEFR	Premium fire retardant vinyl ester grade for use in the most extreme corrosive environments.	ASTM E84 <25	Orange Dark Grey
LSVE	Low fire & smoke vinyl ester grade offering superior performance	ASTM E84 <10	Dark Grey
MOD	Extremely low smoke & toxicity grade of acrylic based resin for use in tunnels, offshore & mass transit applications	ASTM E84 <25	Light Grey
Fstd	Food grade polyester system for use light corrosive duty : USDA accepted	ASTM E84 <25	Light Grey Yellow Green
FP	Food grade isophthalic polyester meeting the highest standards of the food & beverage industry	ASTM E84 <25	Light Grey

TopGrid® Panel & Mesh Sizes

The following table lists the sizes of TopGrid® grating panels in both imperial and metric sizes.

TopGrid® #	Depth	Mesh	2'x2' 61x61cm	3' x 10' 91x305cm	3.25' x 12' 102x366cm	4' x 6' 122x183cm	4' x 8' 122x244cm	4' x 12' 122x366cm	4'x15' 122x457cm	5'x10' 152x305cm
TGM1	0.5" 12.5mm	1.5"(38mm)square					*			
TGM2	0.5" 12.5mm	2"(51mm)square						*	*	
TGM3	0.625" 16mm	1"(25mm)x4(102mm)" rectangular						*		
TGM4	0.75" 19mm	1"(25mm)x4(102mm)" rectangular		*			*			
TGM5	0.75" 19mm	1.5"(38mm)square		*			*	*		
TGM6	1" 25mm	1"(25mm)x4(102mm)" rectangular		*			*			
TGM7	1" 25mm	1"(25mm)x4(102mm)" rectangular			*			*		
TGM8	1" 25mm	1"(25mm)x4(102mm)" rectangular						*		
TGM9	1" 25mm	1.5"(38mm)square		*			*	*		
TGM10	1" 25mm	2"(51mm)square						*		
TGM11	1.25" 32mm	1.5"(38mm)square		*			*	*		*
TGM12	1.5" 38mm	1"(25mm)x2"(51mm) rectangular				*				
TGM13	1.5" 38mm	1.5"(38mm)square		*			*	*		*
TGM14	1.5" 38mm	1.5"(38mm)square						*		
TGM15	1.5" 38mm	1.5" (38mm)x 6" (152mm) rectangular						*		
TGM16	2" 51mm	1"(25mm)x2"(51mm) rectangular				*				
TGM17	2" 51mm	2"(51mm)square						*		
TGM18	2" 51mm	2"(51mm)square						*		
TGM19 Mini Mesh	1" 25mm	Top Mesh 0.75" (19mm) Clear Opening (12mm x 12mm)						*		
TGM20 Mini Mesh	1.5" 38mm	Top Mesh 0.75" (19mm) Clear Opening (12mm x 12mm)						*		
TGM21 Mini Mesh	30mm	Top Mesh 1" (25mm) Clear Opening (19mm x 19mm)	Available Size : 1mtr x 3mtr							

* - Indicates Available Sizes.

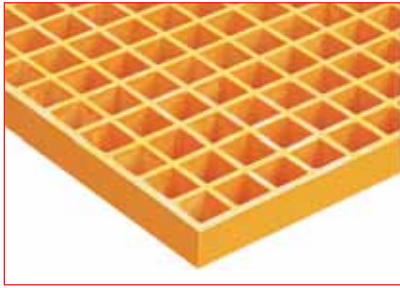


Load data available on demand

TOP GLASS®
Composite Solutions

Anti-slip Surfaces

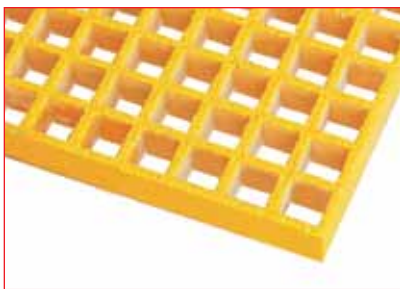
To provide the safest walking surfaces, TopGrid® is available in three anti-slip surfaces.



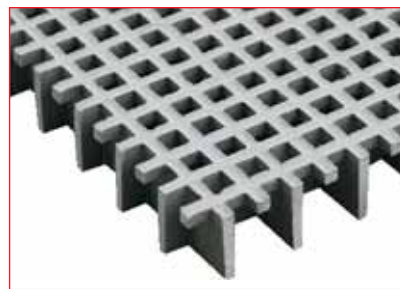
Concave Top : A concave surface suitable for wet & oily conditions



Inbuilt Grit : A quartz grit finish applied in the mould during manufacture



Applied Grit : A quartz grit sealed with a tough, long wearing epoxy top coat



Mini Mesh

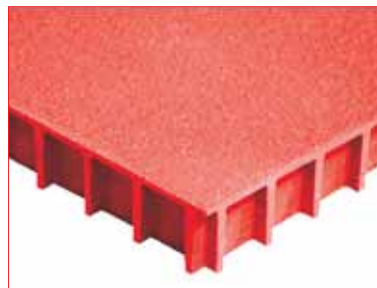
Available Surfaces for Different Grades

Surface	Std	IsoFR	Iso	VE	VEFR	XVEFR	LSVE	MOD	FStd	FP
Concave Top	S	S	N/A	S	S	○	S	S	○	S
Applied Grit	○	○	○	○	○	○	○	○	○	○
Inbuilt Grit	N/A	N/A	S	N/A	N/A	S	N/A	N/A	S	N/A

S = Standard ○ = Optional N/A = Not Available

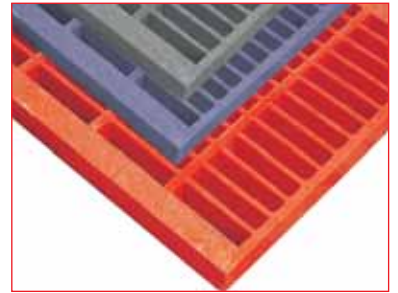
TopPlate Solid Top Gratings

In areas where open mesh flooring is not the favoured solution, TopPlate solid top covered gratings offer the answer. Providing a safe, non-slip, solid walking surface that has 50% higher stiffness than open mesh grating, TopPlate is used to cover equipment, tanks and vats.



TopStep Stairs

Fabricated from open mesh grating, and fitted with end-nosings for improved slip resistance, TopStep stairs are an ideal complement to a TopGrid® walkway.



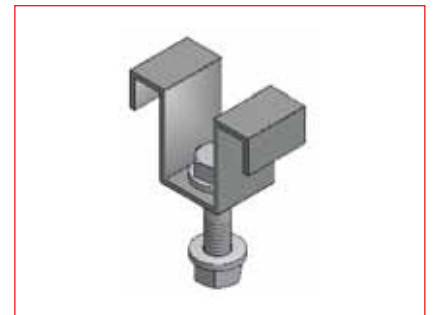
TopTred Stair Treads

TopStep stairtreads are ideal for retro-fitting to corroded steel stairs that retain their structural integrity. Finished with an integral anti-slip gritted top, the treads are easily fitted to an existing stair installation, giving a safe and aesthetically pleasing solution.

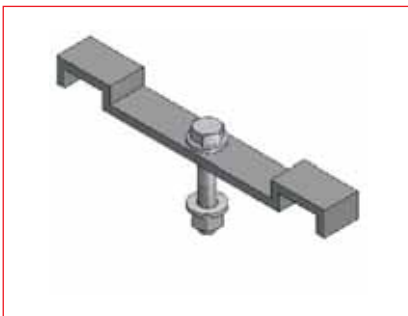


Accessories for Fixation

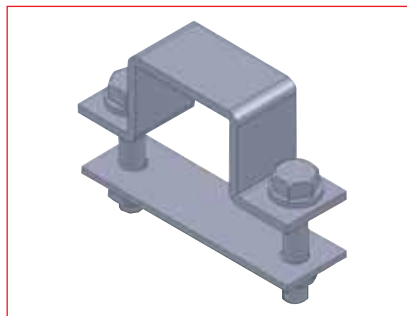
A number of different clip assemblies are available. M Type clips are suitable for a wide range including high load installations.



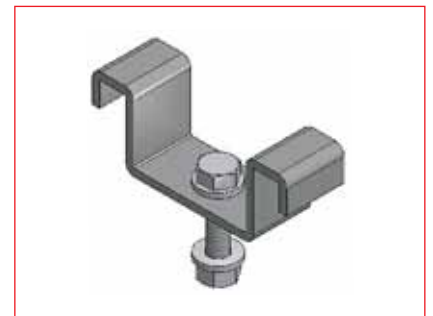
Type M 11



Type M 51 & 61



Type M 53 & 71



Type M 61 & 67



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