

DATA SHEET – INDUSTRIAL GRATING

Fibreglass grating has an impressive strength to weight ratio and replaces traditional materials like galvanised steel and aluminium grating. Our products are specified at the design stage and are installed by major construction companies in applications such as flooring, walkways, platforms, ramps and covers.

A range of Open mesh panels, from 25mm to 50mm thick are held in stock

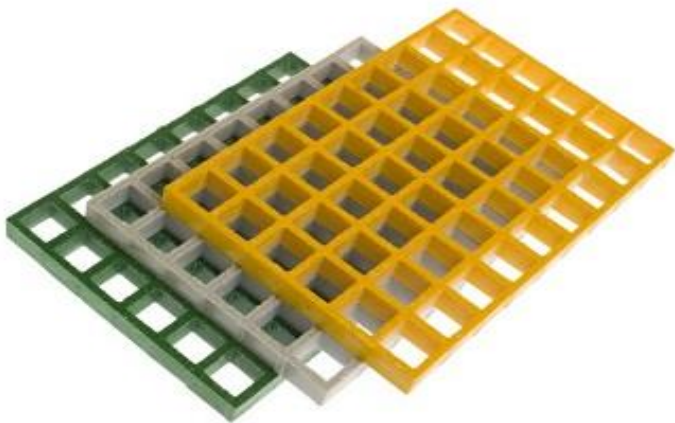


Benefits:

- Anti-slip**
- High Strength**
- Low Maintenance**
- Fire retardant**
- Corrosive resistant**
- UV stable**
- Chemical resistant**
- Anti static**

Raw Material Characteristics

Two main components produce composite GRP: polyester resin and glass fibres. There are several types of resin systems depending on the application: Isophthalic, Orthophthalic, Vinyl ester and Phenolic. Isophthalic & Orthophthalic polyesters are the most widely used resin types and are suitable for most industrial applications. Phenolic & Vinyl ester are available by special order.



Material Characteristics

Quality Assurance

Manufactured according to ISO 9001, the structural integrity of the specified material will remain over a Life span of 25 years plus, under normal environmental and maintained conditions.

Fire Resistance

All products contain Fire Resistant Additive and attain a Euro Class 1 fire rating. To BS EN ISO 9239-1 and BS EN ISO 11925-2.

This performance is equivalent to ASTM E84 class 1 and BS 476 part 7 class 2 flame spread and in effect gives a 25 minute burn time on the material.

Slip Resistance

The integral angular quartz gritted surface has been tested in accordance with BS 7976-2 and certified as providing an exceptional level of slip resistance. Lifespan depends on frequency of use.

Chemical Resistance

Fibreglass Grating is resistant against wide a range of chemicals across wide temperature spectrum. Material can be made of different resin systems to achieve specific chemical resistant properties. Please refer to chemical resistance charts, available upon request.

GRP Characteristics	Unit	Reference
Voltage breakdown	18K volts/mm	ASTM D149
Density kg/m ³	2100	ISO 9001
Thermal Expansion Factor	13 x 10 ⁻⁶ mm/mm °C	ISO 9001
Water Absorption rate	0.45 x 24 hrs	ASTM D570
Operating Temperature	-100 °C to +200 °C	ISO 9001



Load and Deflection table – showing a calculated 1 % deflection

INDUSTRIAL GRATING - open hole 32mm x 32mm			Unsupported Span (unfixed) over a 1m length						
Panel Thickness	Weight kg/m ²	Load Type	300mm	500mm	600mm	750mm	1000mm	1200mm	1500mm
25mm	12kg	Point Load	1290kg	464kg	322kg	206kg	116kg	81kg	52kg
		UDL	2292kg	1375kg	850kg	435kg	184kg	106kg	54kg
38mm	18kg	Point Load	3179kg	1698kg	1179kg	755kg	425kg	295kg	189kg
		UDL	6356kg	3814kg	3179kg	1834kg	774kg	448kg	229kg
INDUSTRIAL GRATING - open hole 42mm x 42mm			Unsupported Span (unfixed) over a 1m length						
Panel Thickness	Weight kg/m ²	Load Type	300mm	500mm	600mm	750mm	1000mm	1200mm	1500mm
50mm	23	Point Load	4944kg	2967kg	2414kg	1545kg	869kg	603kg	386kg
		UDL	9888kg	5933	4944kg	3754kg	1584kg	916kg	469kg

Mesh Sizes:

25mm thick panels have 38 x 38mm between centres of load bars and 32 x 32mm open holes

38mm thick panels have 38 x 38mm between centres and 32 x 32mm open holes

50mm thick panels have 50 x 50mm between centres with 42 x 42mm open holes

Product Specifications

Manufacturing Tolerances

Standard Panel Size	+2mm -0mm
Cut Panel Size	+2mm -2mm
Thickness	+1mm -1mm
Mesh Pattern	+0.5mm-0.5mm

Product Colours

Decksafe keep a range of colours on the shelf. Grey and Green are the most common, although we also stock beige, yellow & black in other products.

Industrial grating stock colours are grey, green and yellow, but if required, these can be pigmented to any RAL colour

Product Surfaces

Surfaces can be manufactured made to suit custom requirements, including minimum and maximum coarse grit, smooth gel coat or a natural concave finish.

Hazard Identification

None by contact. Dust produced by cutting or grinding can penetrate pores and skin causing itching. Avoid breathing dust, skin contact or dust inhalation when cutting. People with a condition that could be aggravated by dust should avoid cutting or grinding.

Handling/Cutting

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

For further technical information or support:

Please visit our website www.deck-safe.co.uk

Email sales@deck-safe.co.uk

Or telephone the office on 01206 322899