

DATA SHEET - STRUCTURAL PANELS

Advances in composite materials, fibreglass structural flooring is fast becoming the cost effective solution for heavy duty applications. A range of **Solid Top** and structurally **Cored** panels are available to suit a variety of commercial and industrial applications, and can be manufactured to suit BS EN124 specifications.

A range of Solid Top panels, from 18mm to 43mm thick are held in stock

Cored panels (solid top and bottom) are manufactured to suit, from 37mm to 74mm thick.

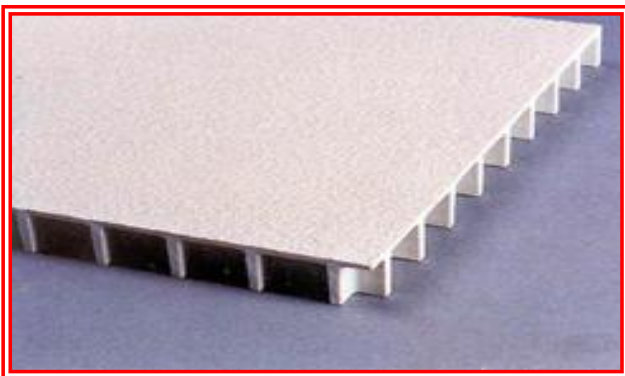


Benefits:

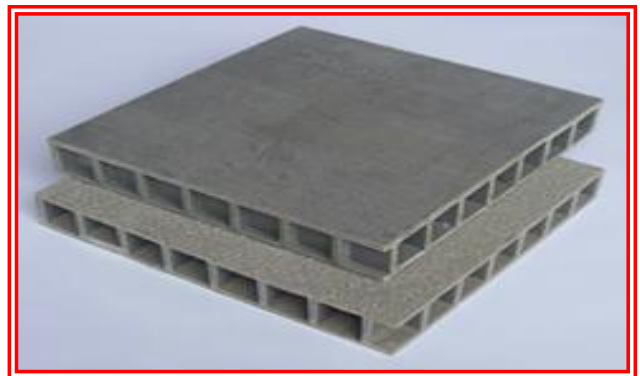
- Anti-slip
- High Strength
- Low Maintenance
- Fire retardant
- Corrosive resistant
- UV stable
- Chemical resistant
- Anti static

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.



Solid Top



Cored Panels

DeckSafe

SOLUTIONS

www.deck-safe.co.uk

Previous Applications



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

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

STRUCTURAL PANELS - Covered Top				Unsupported Span (unfixed) over a 1m length						
Panel Thickness	Construction	Weight/m ²	Load Type	500mm	750mm	1000mm	1200mm	1500mm	1750mm	2000mm
18mm	13+5mm	15kg	Point Load	315kg	140kg	79kg	55kg	35kg	26kg	20kg
			UDL	1060kg	315kg	133kg	77kg	39kg	25kg	17kg
30mm	25+5mm	24kg	Point Load	2010kg	894kg	503kg	349kg	223kg	164kg	126kg
			UDL	5063kg	1922kg	811kg	469kg	240kg	151kg	101kg
43mm	38+5mm	30kg	Point Load	4637kg	2077kg	1168kg	811kg	519kg	381kg	292kg
			UDL	9645kg	5248kg	2214kg	1281kg	656kg	413kg	277kg
55mm	50+5mm	34kg	Point Load	6462kg	3000kg	1686kg	1170kg	750kg	551kg	422kg
			UDL	12926kg	8617kg	3795kg	2196kg	1125kg	708kg	474kg

STRUCTURAL PANELS - Cored Panels				Unsupported Span (unfixed) over a 1m length						
Panel Thickness	Construction	Weight/m ²	Load Type	500mm	750mm	1000mm	1200mm	1500mm	1750mm	2000mm
37mm	6+25+6mm	36kg	Point Load	7350kg	3270kg	1840kg	1275kg	820kg	600kg	460kg
			UDL	16970kg	7950kg	3350kg	1940kg	990kg	625kg	420kg
42mm	6+30+6mm	38kg	Point Load	10078kg	4479kg	2520kg	1750kg	1120kg	823kg	630kg
			UDL	20480kg	10884kg	4592kg	2657kg	1361kg	857kg	574kg
50mm	6+38+6mm	42kg	Point Load	13199kg	6873kg	3866kg	2685kg	1718kg	1262kg	967kg
			UDL	26398kg	16700kg	7046kg	4078kg	2088kg	1315kg	881kg
62mm	6+50+6mm	46kg	Point Load	18158kg	11725kg	6595kg	4580kg	2931kg	2154kg	1649kg
			UDL	36315kg	24210kg	12020kg	6956kg	3561kg	2243kg	1502kg
74mm	12+50+12mm	70kg	Point Load	34395kg	22930kg	14911kg	10355kg	6627kg	4869kg	3728kg
			UDL	68789kg	45860kg	27175kg	15727kg	8052kg	5070kg	3397kg

Calculations are based around a 1% Deflection when the load (kg) is applied

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.

Solid Top stock colours are grey and green, but along with cored panels, 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