

# GRP Data Sheet

## Loading Information

### GRP Selection

When choosing the correct depth of GRP to install, the factors to take into account should include:

- Intended use and associated loading requirements.
- Types of equipment that will be placed on it in both the temporary and permanent condition.
- Cuts required for M&E and services.

### GRP Loading Standards

**1.** BS 4592 PART 0+A1:2012 and BSEN14122 standards for walkways & working platforms state the minimum loads to take into account are:

- 2.0kN/m<sup>2</sup> Uniformly Distributed Load (UDL) to account for structure.
- 1.5kN concentrated load applied in the most unfavourable position over an area of 200mm<sup>2</sup> of the floor.

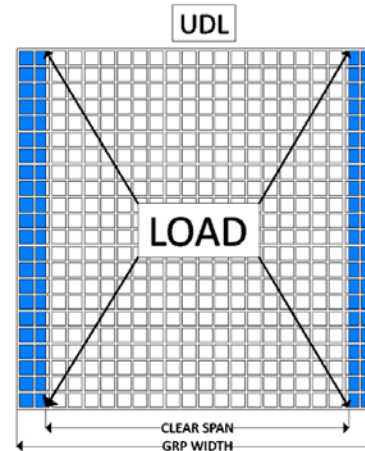
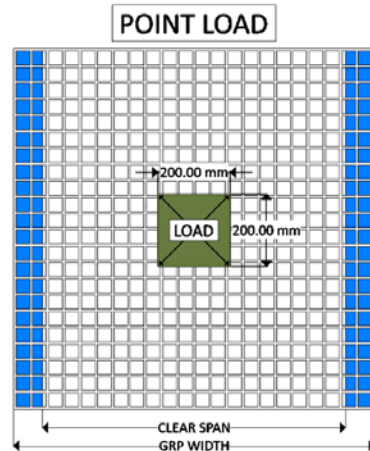
**2.** Standard GRP design deflection allowance is L/200 up to a maximum of 10mm.

### Loading Definitions


**Uniformly Distributed Load (UDL)** – Where the load is considered evenly distributed across a defined area, usually denoted as per m<sup>2</sup>.

**Point Load** – A static load considered to act over a small area (in this case 200mm<sup>2</sup>) when compared to the total surface area to which the load is applied.

 Please allow ±1mm tolerance



Load Table	25mm		38mm		50mm		28mm Solid Top		41mm Solid Top	
<b>Mesh Size</b>	38 x 38		38 x 38		50 x 50		38 x 38		38 x 38	
<b>Open Area</b>	70%		70%		78%		Closed top		Closed top	
<b>Weight kgpm<sup>2</sup></b>	13.5		18.5		21.2		24		30	
Clear Span (W)	UDL kg	PL kg	UDL kg	PL kg	UDL kg	PL kg	UDL kg	PL kg	UDL kg	PL kg
<b>600mm</b>	425	161	1589	589	2472	1207	425	161	1589	589
<b>750mm</b>	217	103	917	377	1877	772	217	103	917	377
<b>1000mm</b>	N/A	N/A	387	212	792	434	N/A	N/A	387	212
<b>1200mm</b>	N/A	N/A	224	147	458	301	N/A	N/A	224	147
<b>1500mm</b>	N/A	N/A	N/A	N/A	234	193	N/A	N/A	N/A	N/A

 The data listed above is for general guidance only. Due to environmental & operational conditions as a third party supplier, First Fix Formwork Ltd is unable to guarantee that the performance of the grating will correspond to the loadings indicated above.

**Section 1: Physical / Chemical Characteristics / Reactivity Data**

- Resin type: Isophalic polyester
- Solubility in water: No
- Appearance and odour: 1 phase solid with various colours and possible slight odour
- % Volatiles by volume: None (75°F)
- pH (Neutral =7): 6 - 8
- Evaporation rate: 0
- Stability: Stable
- Hazardous polymerisation: Will not occur

**Section 3: Health Hazard Data / Safe Handling**

- Threshold limit value: N/A
- Effects of overexposure: Dust from grinding or finishing can cause mild irritation to the eyes and skin. Nuisance dust.
- Emergency first aid procedures: Wash skin well without rubbing. For the eyes, use a sterile solution and flood the eye area. Change clothing after exposure. Apply antiseptic to abraded skin areas.
- Movement: Care should be taken when lifting full sheets and attention paid to any manual lifting restrictions.

**Section 2: Fire and Explosion Hazard**

- Flash point: N/A
- Extinguishing Media: Water, foam: Type A, B, or C extinguishers
- Special fire fighting procedures: Use self-contained apparatus
- Unusual fire & explosion hazards: Heavy smoke, products of combustion (CO, CO2, HBr)
- Fire tested: ASTM E84 class A, 25 or less
- Approvals: US Coast Guard, ABS Approved, Det Norsk Veritas

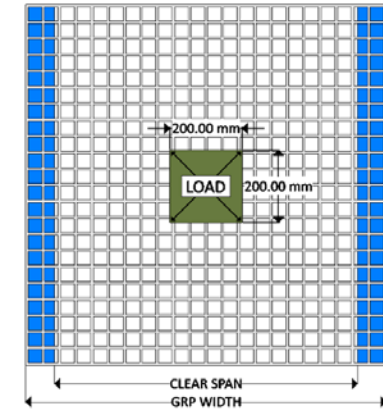
**Section 4: Control Measures**

- Respiratory Protection: Wear respirator mask when cutting: 3M No 4251 is recommended.
- Ventilation: Cut in a well ventilated area. Use vacuum/dust collector with cutting tools.
- Protective equipment: Suitable protective clothing covering all exposed body parts should be worn. Equipment such as safety glasses, cut resistant gloves and respirator mask should be worn when cutting and handling GRP.
- Cutting: Heavy duty rotary saw with masonry, carbide or diamond coated blade.
- Grinding: Use coarse grit, open coated (resin) grinding discs.
- Finishing: In corrosive environments cut edges may be coated with resin to prevent possible corrosion of glass fibres. A light coating of two-part resin or urethane spray paint is satisfactory, subject to environmental conditions.

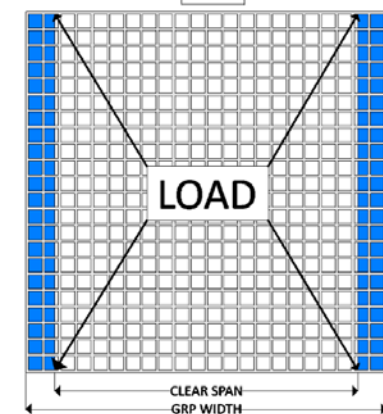
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## Health & Safety

**POINT LOAD**



**UDL**



Please allow ±1mm tolerance

