

Deck Joint Guidance for GRP Handover Inspection

1 Visual inspection

Remove any covers and visually inspect the GRP. Ensure that there are no cracks or serious damage to the structure of the grating. This will be a very rare event but if damage is found the panel should be replaced.

2 Support structures

The GRP panel will usually be supported by a rebate in the concrete or a steel angle fixed to the wall below. Where a steel angle has been used a check should be made on the fixings used to secure it to the wall. A minimum of an M10 bolt, with a minimum fixing depth of 50mm, fixed at each end and at @ 500mm ctrs.

3 Bearing

The edge of the GRP panel located on the supports, either concrete rebate or steel angle, must have at least one full bar running parallel along it. It is common for there to be fingers extending from one side and this is acceptable so long as there is a full bar located on the top of the support as well. If for any reason a bar is not located along the full length of the support, the panel should be replaced.

4 Safe Working Load (SWL)

In order to calculate the SWL, the table shown below should be used, by cross referencing the depth

Dura Grating Standard Mesh Grating - Load and Deflection (Kg/metre @ 1% Deflection)									
Panel Thickness (mm)	Span Type of Loading	250mm	500mm	600mm	750mm	1000mm	1200mm	1500mm	2000mm
13	Point Load	79kg	20kg	14kg	9kg	5kg	3kg	2kg	1kg
	UDL	570kg	158kg	92kg	47kg	20kg	11kg	6kg	2kg
25	Point Load	1,585kg	464kg	322kg	206kg	116kg	80kg	51kg	29kg
	UDL	2,751kg	1,375kg	850kg	435kg	184kg	106kg	54kg	23kg
30	Point Load	2,381kg	836kg	581kg	372kg	209kg	145kg	92kg	52kg
	UDL	4,761kg	2,381kg	1,765kg	904kg	381kg	221kg	113kg	48kg
38	Point Load	3,814kg	1,698kg	1,179kg	755kg	424kg	294kg	188kg	106kg
	UDL	7,629kg	3,814kg	3,179kg	1,834kg	774kg	448kg	229kg	97kg
50	Point Load	5,933kg	2,967kg	2,414kg	1,545kg	868kg	603kg	386kg	217kg
	UDL	11,866kg	5,933kg	4,944kg	3,754kg	1,584kg	916kg	469kg	198kg

of GRP used with the width of the riser. It is good practice to have a sign on each riser showing the calculated SWL so that following trades can be kept informed.

5 Fixing

The GRP panels should be securely fixed down to prevent lifting and excessive flexing. A domed washer or correctly sized M-clip located in each corner and @ 1000mm ctrs along the sides, should be in place.