

# GRP GRATING

## TECHNICAL SPECIFICATIONS

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- Our GRP grating is supplied with Grit top, anti slip surface as standard
- Grating is formed by weaving continuous glass fibres, vertically and horizontally into a mould, creating an exceptionally strong, durable, one-piece panel.
- GRP Grating is non-conductive & lightweight, a huge advantage over steel alternatives.
- GRP gratings usually supplied with stainless steel 'M' clips / 'C' clips and M8 Bolt which is recessed to prevent trip hazard.
- The pigment added to the resin gives the grating its colour.
- Gratings have UV inhibitor, but may eventually fade if exposed to long periods of sunlight.

### QUALITY ASSURANCE

- All Ezi Klamp's GRP grating is manufactured by our ISO-9001 certified partners. Ezi Klamp recognises the importance of all products being consistent in quality and regularly inspects the production process to ensure best quality products are produced.
- All GRP gratings manufactured in accordance with BS 4592 Part 6: 2008 Industrial Type Flooring and Stair Treads.

### CHARACTERISTICS

- Lightweight yet high strength to weight ratio
- Non-conductive
- Chemical & Corrosion resistant
- Fire retardant – available upon request.
- Long life span – Over 25 years
- Impact resistant
- Strong & Durable
- Anti slip surface

### APPLICATIONS

- Walkways & Risers
- Railway track crossings & sidings
- Offshore applications

### CHEMICAL & FIRE RESISTANCE

- Made from Iso resin as standard
- Materials used in forming GRP grating panels are chemical resistant to a large number of chemicals, including Petrol, Oil, Salt Water, Citric Acid, Calcium Chloride etc. Please ask for further details if product is to be applied in conditions with more aggressive chemicals.
- Our GRP gratings have been tested for fire resistance in accordance with BS 476: Part 7 and meets requirements of Class 2. Greater levels of fire retardancy are available – enquire for more details.

### OPERATING TEMPERATURE

- GRP grating has operating temperature range of -50°C to +95°C

### LIFE EXPECTANCY

- Proven to have a life span of over 25 years and remained to be highly effective. Only noticeable sign of wear is from fading of colour due to sunlight exposure.

### MAINTENANCE

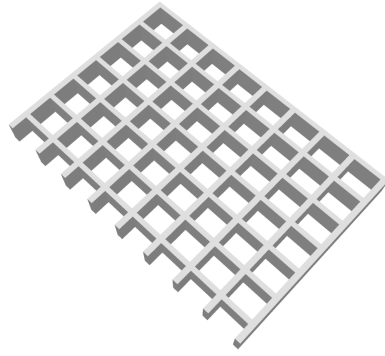
- GRP grating is maintenance free – so long as it is used in applications not greater than that mentioned in this document.
- If grating requires cleaning – wipe with a mild cleaning detergent.

### HEALTH & SAFETY

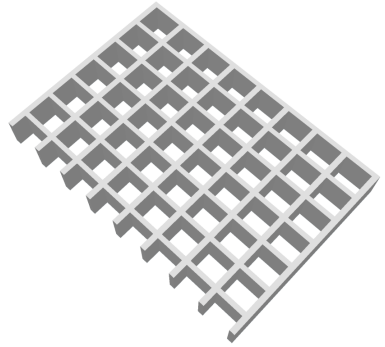
- GRP dust may cause slight skin irritation – Wash all exposed skin thoroughly with soap and water. Should these effects become prolonged or should any signs of a rash occur, seek medical advice. Any eye contamination should be washed out with copious amounts of bottled sterile water or fresh clean water.

## GRATING TYPES & SPECIFICATION

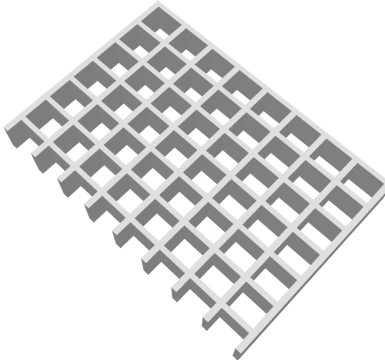
25MM THICKNESS				
Name	GRT25BE			
Grid Size	38x38 SM			
Panel Depth	25mm			
Load Bar Thickness	6.4			
Load Bar Centres	38			
No. Bars per foot	8			
Open Area	70%			
Approx. Weight	12kg's/sq.m			
Panel Sizes (mm)	3660 x 1220	3016 x 996	1988 x 996	Custom Sizes



38MM THICKNESS				
Name	GRT38BE			
Grid Size	38x38 SM			
Panel Depth	38mm			
Load Bar Thickness	7			
Load Bar Centres	38			
No. Bars per foot	8			
Open Area	68%			
Approx. Weight	19.5kg's/sq.m			
Panel Sizes (mm)	3660 x 1220	3016 x 996	1988 x 996	Custom Sizes



50MM THICKNESS				
Name	GRT50BE			
Grid Size	50x50 SM			
Panel Depth	50mm			
Load Bar Thickness	8			
Load Bar Centres	50			
No. Bars per foot	8			
Open Area	71%			
Approx. Weight	23.51kg's/sq.m			
Panel Sizes (mm)	3660 x 1220	Custom Sizes		



## TECHNICAL DETAILS

Grating Colours	Green, Grey or Yellow (dependant on panel size & thickness) - Other colours available upon request.
Tolerances (including cut):	+/- 7mm width, length and diagonal
Depth tolerances:	+/- 1.5mm
Service temperatures:	-50 to +95°C
Load capabilities:	See table below
Design life:	25+ years (subject to traffic analysis)
General use:	Standard pedestrian traffic
Standards: Fire:	Tested to BS 476: Part 7: 1997 Class 2

PHYSICAL PROPERTIES	
Density	1900Kg/m3
Glass: Resin ratio:	40:60 (approximately)
MECHANICAL PROPERTIES	
Tensile Modulus:	13.79GPa
Shear Modulus:	2.9GPa
Poisson's Ration:	0.33
Coefficient of Thermal Expansion:	9x10-6/°C
Thermal Conductivity:	0.6W/m°C

## UNIFORM LOAD TABLE

Moulded Grating Uniform Load Tables - Deflection in Millimetres																		
Clear Span (mm)	Style			Load (kN/m <sup>2</sup> )														Max recommended load (kN/m <sup>2</sup> )
	Name	Depth (mm)	Mesh (mm)	3	5	8	10	13	15	20	25	39	50	60	70	80	90	
400	GRT25BE	25	38 X 38	0.4	0.7	1.1	1.3	1.7	2.0	2.6	3.3	5.1	6.6	7.9	9.2	10.5	11.8	48
	GRT38BE	38	38 X 38	0.1	0.2	0.4	0.5	0.6	0.7	0.9	1.2	1.8	2.3	2.8	3.3	3.7	4.2	100
	GRT50BE	50	50 X 50	0.1	0.1	0.2	0.3	0.4	0.4	0.6	0.7	1.1	1.4	1.7	2.0	2.3	2.6	154
600	GRT25BE	25	38 X 38	1.8	3.0	4.8	6.0	7.8	9.0	12.0	15.0	-	-	-	-	-	-	20
	GRT38BE	38	38 X 38	0.6	1.0	1.6	2.0	2.6	3.0	3.9	4.9	7.7	9.9	13.8	15.8	-	-	45
	GRT50BE	50	50 X 50	0.1	0.2	0.3	0.3	0.4	0.5	0.7	0.8	1.3	1.6	2.0	2.3	2.9	-	73
800	GRT25BE	25	38 X 38	5.7	9.5	15.1	-	-	-	-	-	-	-	-	-	-	-	9
	GRT38BE	38	38 X 38	1.8	3.0	4.7	5.9	7.7	8.9	11.8	14.8	-	-	-	-	-	-	26
	GRT50BE	50	50 X 50	0.3	0.6	0.9	1.1	1.5	1.7	2.3	2.8	4.4	5.7	6.8	8.0	9.1	10.2	35
1000	GRT25BE	25	38 X 38	13.9	-	-	-	-	-	-	-	-	-	-	-	-	-	5
	GRT38BE	38	38 X 38	4.3	7.1	11.4	14.3	-	-	-	-	-	-	-	-	-	-	14
	GRT50BE	50	50 X 50	2.3	3.8	6.1	7.7	9.9	11.5	15.3	-	-	-	-	-	-	-	21
1200	GRT38BE	38	38 X 38	8.9	14.8	-	-	-	-	-	-	-	-	-	-	-	-	9
	GRT50BE	50	50 X 50	4.7	7.8	12.5	15.6	-	-	-	-	-	-	-	-	-	-	14
1400	GRT50BE	50	50 X 50	8.5	14.2	-	-	-	-	-	-	-	-	-	-	-	-	8

(1 kilonewton is equal to 101.97 kilograms)

### NOTES:

1. All gratings were tested in accordance with BS4592-0:2006. For pedestrian traffic, the deflection of a floor panel under the design load shall not exceed 10mm or 1/200th of the span, whichever is the lesser. The difference in level between a loaded and a neighbouring unloaded flooring shall not exceed 4mm.

## POINT LOAD TABLE

Point Load Table - Deflection in Millimetres											
Clear Span (mm)	Style			Point Load (kN)							
	Name	Depth (mm)	Mesh (mm)	1.5	3.5	5	7.5	10	15	20	30
300	GRT25BE	25	38 X 38	-	0.44	0.60	1.04	1.43	1.82	2.84	3.56
	GRT38BE	38	38 X 38	-	0.32	0.39	0.72	0.93	1.21	1.89	2.32
	GRT50BE	50	50 X 50	-	0.41	0.52	0.79	1.11	1.51	2.44	2.93
450	GRT25BE	25	38 X 38	0.27	0.67	0.88	1.54	2.05	2.65	4.21	5.21
	GRT38BE	38	38 X 38	-	0.40	0.56	1.01	1.34	1.74	2.76	3.42
	GRT50BE	50	50 X 50	0.27	0.59	0.71	1.12	1.62	2.19	3.60	4.32
600	GRT25BE	25	38 X 38	0.77	1.58	2.08	3.15	4.50	6.12	-	-
	GRT38BE	38	38 X 38	0.52	1.05	1.36	2.06	2.93	4.08	6.74	-
	GRT50BE	50	50 X 50	0.42	0.85	1.11	1.72	2.45	3.29	5.39	6.45
750	GRT25BE	25	38 X 38	1.27	2.95	3.76	6.04	8.80	-	-	-
	GRT38BE	38	38 X 38	0.85	1.96	2.56	3.96	5.79	7.80	-	-
	GRT50BE	50	50 X 50	0.67	1.59	2.05	3.12	4.62	6.37	9.92	-
900	GRT25BE	25	38 X 38	1.75	4.30	5.50	8.79	13.12	-	-	-
	GRT38BE	38	38 X 38	1.19	2.89	3.69	5.89	8.63	11.72	-	-
	GRT50BE	50	50 X 50	0.92	2.38	2.98	4.73	6.99	10.17	-	-
1200	GRT25BE	25	38 X 38	2.90	7.40	10.34	15.19	-	-	-	-
	GRT38BE	38	38 X 38	1.90	4.83	6.87	9.96	14.79	-	-	-
	GRT50BE	50	50 X 50	1.63	3.98	5.59	8.09	10.78	15.59	-	-