

# Gripatex GRP Products

Stair Tread Covers

Mesh Walkway

Flat Sheet

**Lockinex**<sup>®</sup>  
*great service, great quality*

## INTRODUCTION

The Gripatex range of GRP Products is available directly from Lockinex UK Ltd.

The range includes, Mesh Walkway Gratings, Stair Tread covers & Nosing, Flat gritted Sheet.

## APPLICATION

Used throughout industry sectors such as Power Plants, Petro chemical, Waste & Recycling, Water Authorities, Rail and much more.

The anti Slip surfaces improve safety under foot and are suitable for ramps, stairs and walkways.

## DESIGN

Designed to provide a robust anti slip surface.

The open mesh walkway panels have load tables shown in the following pages. These provide guidelines for spans between supporting members.

## COMPOSITION, MANUFACTURE

GFRP moulded panels, with UV inhibitor and fire resistance, Isophthalic Polyester & Vinylester.

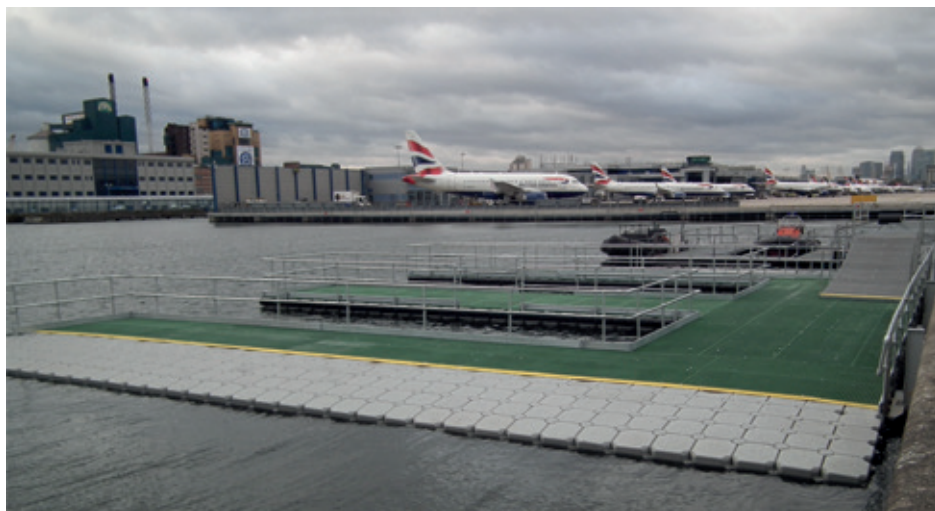
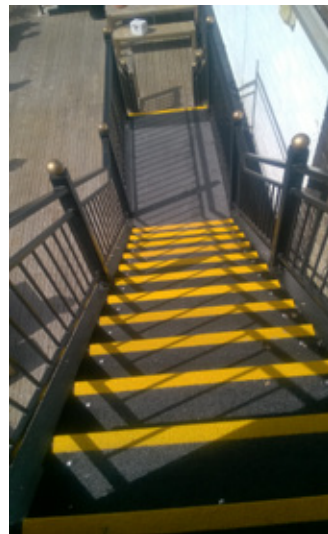
Tested to BS 4592-0:2006 + A1:2012. GRP Grating Class 1 flame spread according to ASTM E84.

Providing chemical resistance and fire retardant (data sheets available upon request).

## CUTTING AND SEALING

Lockinex UK Ltd offer a full GRP cutting service. Please contact us to discuss your cutting requirements.

When GRP grating is cut on site, it is recommended that a clear resin with a catalyst is applied to the cut edges to seal any exposed fibres and protect them from degradation.

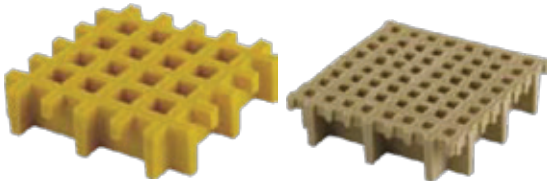


*The above is an installation located in London City Airport. It utilises key clamp handrail system, Steel Kick-plate/Toe-board and our Non-slip flooring open mesh GRP Flooring.*

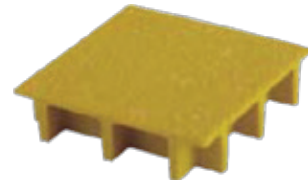
Lockinex UK Ltd are currently undergoing a large expansion to the Gripatex GRP range. Current stock items in our range include GRP grating/open flooring, non-slip sheets, stair tread covers and nosings.

Additions to our range will include: Micro and mini mesh GRP grating, solid diamond top GRP flooring, solid gritted top GRP flooring, interlocking floor panels and solid deck floor panels (images below).

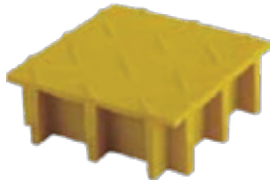
**Mini & Micro mesh grating**



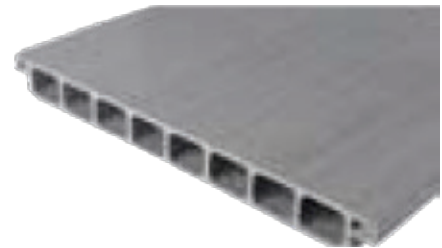
**Gritted solid top**



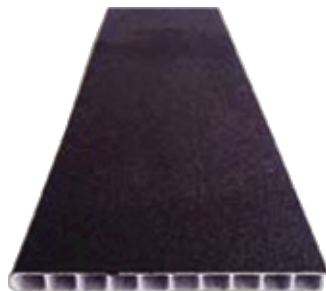
**Diamond/durbar solid top**



**Solid deck floor panels**



**Interlocking floor panels**



Gripatex GRP grating is manufactured from Isophthalic polyester resin and currently performs to a Class 1 flame spread rating as stated in ASTM E84 (flame spread index is 25 or less). Tests are currently being conducted to BS 476-7 and results will be published when available. Chemical resistance data sheets are available upon request.

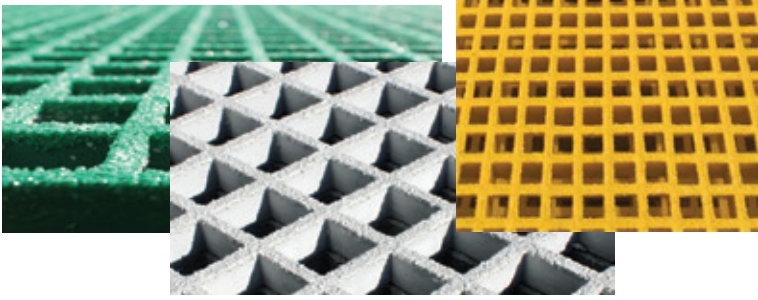
Our range of GRP grating and flooring products can be manufactured from a number of special order resins to achieve various properties (as shown in the table below).

Resin type	Resin base	Description	Corrosion resistance	Flame spread rating ASTM E84	Colours available
VEFR-25	Vinyl ester	Superior corrosion resistance and retardant	Excellent	Class 1, 25 or less	Dark grey, orange
VEFR-10	Vinyl ester	Superior corrosion resistance and enhanced retardant	Excellent	Class 1, 10 or less	Dark grey
IFR-25	Vinyl ester	Industrial grade corrosion resistance and fire retardant	Very good	Class 1, 25 or less	Dark grey, green
IFR-10	Isophthalic polyester	Industrial grade corrosion resistance and extra fire retardant	Very good	Class 1, 10 or less	Custom
IFGR-30	Isophthalic polyester	Food grade corrosion resistance and fire retardant	Very good	Class 1, 25 or less	Light grey, light green, yellow
OFR-25	Ortho	Moderate corrosion resistance and fire retardant	Moderate	Class 1, 25 or less	Dark grey, light grey, green, yellow
MP-5	Phenolic resin	Low smoke and superior fire resistance	Very good	Class 1, 5 or less	Reddish brown. Phenolic painting of the grating can be performed to obtain a grey or red finish
O-CR	Ortho	Moderate corrosion resistance	Moderate	None	Dark grey, light grey, green, yellow

Please contact us to discuss special order GRP products.

## Standard range of GRP gratings from Lockinex

Lockinex GRP gratings are manufactured from Isophthalic polyester resin and performs to Class 1 flame spread as defined in ASTM E84 (flame spread index is less than 25). It can also comply with BS 4592-0:2006 + A1:2012 general and heavy duty loading and falls into the enhanced slip resistance category with a coefficient of friction greater than 0.6.



### Yellow RAL 1003

		Sheet Size (mm)	Aperture Size (mm)	Weight (kg)
GRP-06	25mm Thick	2400mm x 1000mm	32mm x 32mm	30
GRP-27	25mm Thick	3660mm x 1000mm	32mm x 32mm	46
GRP-33	38mm Thick	3660mm x 1000mm	32mm x 32mm	72

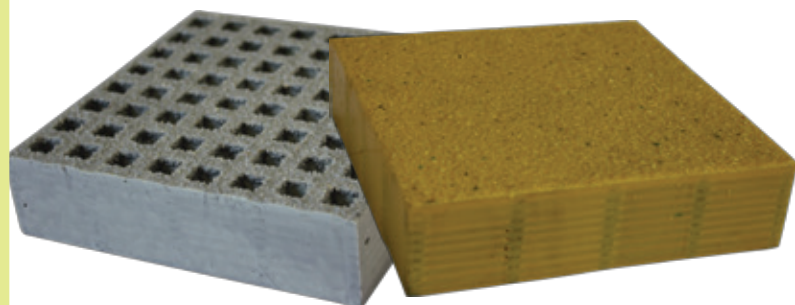
### Green RAL 6029

		Sheet Size (mm)	Aperture Size (mm)	Weight(kg)
GRP-05	25mm Thick	2400mm x 1000mm	32mm x 32mm	30
GRP-25	25mm Thick	3660mm x 1000mm	32mm x 32mm	46
GRP-13	38mm Thick	2400mm x 1000mm	32mm x 32mm	46
GRP-31	38mm Thick	3660mm x 1000mm	32mm x 32mm	72
GRP-17	50mm Thick	3660mm x 1220mm	42mm x 42mm	99
GRP-21	50mm Thick	2390mm x 1020mm	42mm x 42mm	53

### Grey RAL 7035

		Sheet Size (mm)	Aperture Size (mm)	Weight (kg)
GRP-07	25mm Thick	2400mm x 1000mm	32mm x 32mm	30
GRP-29	25mm Thick	3660mm x 1000mm	32mm x 32mm	46
GRP-15	38mm Thick	2400mm x 1000mm	32mm x 32mm	46
GRP-35	38mm Thick	3660mm x 1000mm	32mm x 32mm	72
GRP-11	38mm Thick	3660mm x 1220mm	32mm x 32mm	85
GRP-19	50mm Thick	3660mm x 1220mm	42mm x 42mm	99
GRP-23	50mm Thick	2390mm x 1020mm	42mm x 42mm	53
GRP-37	50mm Thick	2400mm x 1000mm	32mm x 32mm	100

## Mini mesh and solid top range of GRP gratings from Lockinex



Lockinex GRP gratings are manufactured from Isophthalic polyester resin and performs to Class 1 flame spread as defined in ASTM E84 (flame spread index is less than 25). It can also comply with BS 4592-0:2006 + A1:2012 general and heavy duty loading and falls into the enhanced slip resistance category with a coefficient of friction greater than 0.6.

**Note- Underlying aperture structure for mini mesh and solid gritted top is 32 x 32mm. When looking at load tables, please use load values for 32 x 32mm aperture to obtain loading capabilities for both micro mesh and solid gritted top GRP flooring.**

### Yellow RAL 1003

		Sheet Size (mm)	Aperture Size (mm)	Weight (kg)
GRP-39	38mm Thick	2400mm x 1000mm	N/A solid gritted top	50
GRP-41	38mm Thick	3660mm x 1000mm	N/A solid gritted top	78
GRP-43	38mm Thick	2400mm x 1000mm	12.7mm x 12.7mm	57
GRP-45	38mm Thick	3660mm x 1000mm	12.7mm x 12.7mm	86

### Green RAL 6029

		Sheet Size (mm)	Aperture Size (mm)	Weight(kg)
GRP-47	38mm Thick	2400mm x 1000mm	N/A solid gritted top	50
GRP-49	38mm Thick	3660mm x 1000mm	N/A solid gritted top	78
GRP-51	38mm Thick	2400mm x 1000mm	12.7mm x 12.7mm	57
GRP-53	38mm Thick	3660mm x 1000mm	12.7mm x 12.7mm	86

### Grey RAL 7035

		Sheet Size (mm)	Aperture Size (mm)	Weight (kg)
GRP-55	38mm Thick	2400mm x 1000mm	N/A solid gritted top	50
GRP-57	38mm Thick	3660mm x 1000mm	N/A solid gritted top	78
GRP-59	38mm Thick	2400mm x 1000mm	12.7mm x 12.7mm	57
GRP-61	38mm Thick	3660mm x 1000mm	12.7mm x 12.7mm	86

**Stainless Steel 316 fixing clip for fixing down & joining GRP gratings.**

Please order separately.

**Clips should be placed no more than 1.25 mtr apart in any direction.**



Type C clip joins panels.



Type M clip  
Holds down panel and fixes onto supporting structure.



Type Dome clip holds down panels and fixes onto supporting structure. For use with solid gritted top and micro mesh only.

**Clip-C253238** (C clip to suit 25mm deep grating with 32mm physical aperture and 38mm mesh centres)

**Clip-C383238** (C clip to suit 38mm deep grating with 32mm physical aperture and 38mm mesh centres)

**Clip-C504250** (C clip to suit 50mm deep grating with 42mm physical aperture and 50mm mesh centres)

**Clip-C503238** (C clip to suit 50mm deep grating with 32mm physical aperture and 38mm mesh centres)

**Clip-C381219** (C clip to suit 38mm deep grating with 12.7mm physical aperture and 19mm mesh centres)

**Clip-M253238** (M clip to suit 25mm deep grating with 32mm physical aperture and 38mm mesh centres)

**Clip-M383238** (M clip to suit 38mm deep grating with 32mm physical aperture and 38mm mesh centres)

**Clip-M504250** (M clip to suit 50mm deep grating with 42mm physical aperture and 50mm mesh centres)

**Clip-M503238** (M clip to suit 50mm deep grating with 32mm physical aperture and 38mm mesh centres)

**Clip-M381219** (M clip to suit 38mm deep grating with 12.7mm physical aperture and 19mm mesh centres)

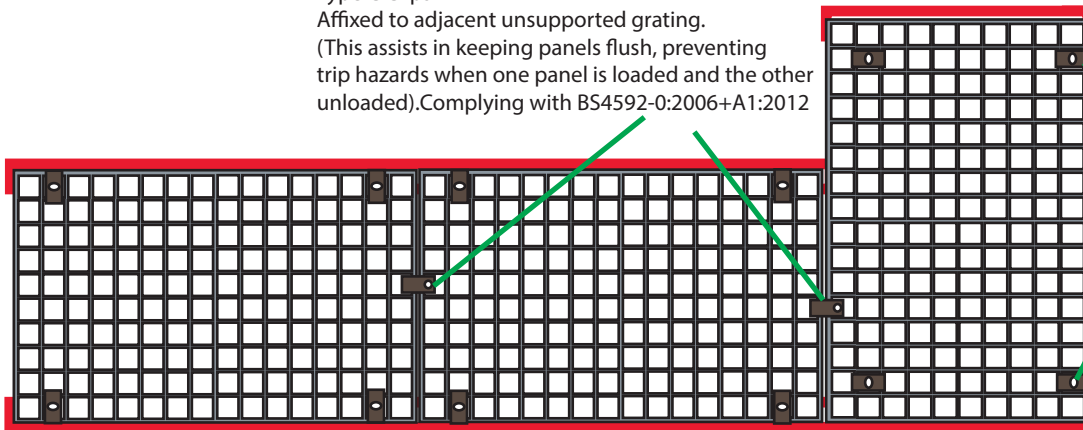
Clip-Dome (For mini mesh and solid gritted top only)

Clip-Dome (For mini mesh and solid gritted top only)

Clip-Dome (For mini mesh and solid gritted top only)

**Type C Clips**

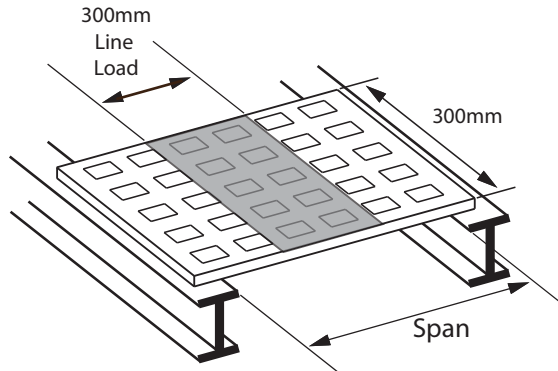
Affixed to adjacent unsupported grating.  
(This assists in keeping panels flush, preventing trip hazards when one panel is loaded and the other unloaded). Complying with BS4592-0:2006+A1:2012



Type M or Dome Clips  
Affixed to supporting Structure.  
Space at no more than 1.25mtr apart in any direction.

# Conformity to BS 4592-0:2006 + A1:2012

Lockinex GRP mesh flooring has been tested to the standards set out in BS 4592-0:2006 + A1:2012. Load tables can be found on the following pages for line loading, uniform loading and point loading. Line loading is not a required test according to BS 4592-0:2006 + A1:2012. However, it is present in this brochure to provide extra loading criteria should you require it. Deflection under uniform loads (5.0kN/m for general duty and 7.5kN/m for heavy duty) and point loads (1.5kN for both general and heavy duty) are presented in the load tables. BS 4592-0:2006 + A1:2012 states that deflection must not be greater than 1/200th of the span or 10mm (whichever is lesser) in order for compliance for both uniform and point loading.

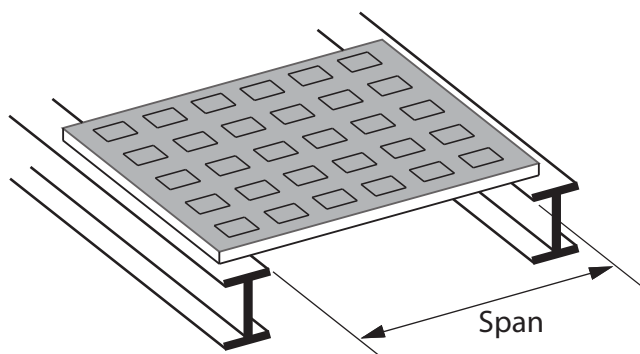


Line load data is for general information only.  
There is currently no requirement for compliance.

**MOULDED FIBREGLASS GRATING-  
Deflection table for concentrated line load (300mm wide)**

Span (mm)	Aperture (mm)	Thickness (mm)	Uniform Load (kg/300mm)							Concentrated Line Load under 1% deflection (kg/300mm)
			45	114	227	341	454	681	908	
305	32 x 32	25	0.24	0.51	1.02	1.52	2.03	3.03	4.05	683
	32 x 32	38	0.1	0.24	0.49	0.71	0.95	1.42	1.9	1457
	42 x 42	50	0.06	0.16	0.31	0.48	0.63	0.95	1.27	2183
457	32 x 32	25	0.69	1.75	3.49	5.25	6.99	10.49	-	297
	32 x 32	38	0.21	0.52	1.04	1.57	2.07	3.12	4.16	998
	42 x 42	50	0.13	0.33	0.67	1.01	1.33	2.01	2.67	1552
610	32 x 32	25	1.74	4.4	8.76	-	-	-	-	158
	32 x 32	38	0.5	1.26	2.51	3.77	5.02	7.53	10.03	552
	42 x 42	50	0.31	0.77	1.55	2.32	3.08	4.64	6.18	896
914	32 x 32	25	5.79	-	-	-	-	-	-	71
	32 x 32	38	1.68	4.25	8.47	12.72	-	-	-	245
	42 x 42	50	0.99	2.49	4.97	7.47	9.95	14.93	-	417
1219	32 x 32	38	4	10.14	-	-	-	-	-	137
	42 x 42	50	2.3	5.84	11.63	-	-	-	-	238
1372	32 x 32	38	5.72	14.48	-	-	-	-	-	108
	42 x 42	50	3.28	8.32	16.57	-	-	-	-	188
1524	32 x 32	38	7.79	14.48	-	-	-	-	-	88
	42 x 42	50	4.51	11.43	-	-	-	-	-	152





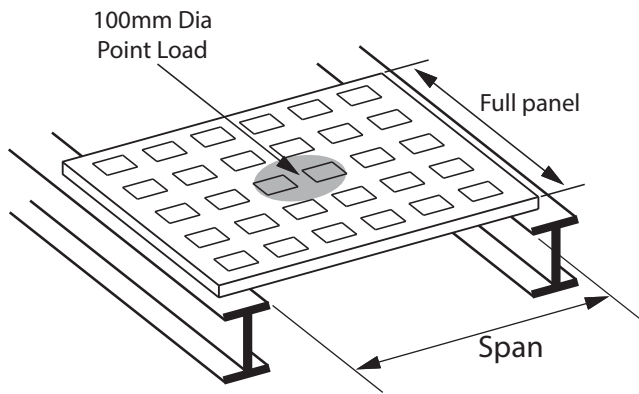
Compliance with BS 4592-0:2006 + A1:2012 is not achieved.

Compliance with BS 4592-0:2006 + A1:2012 general duty uniform load is achieved (min. load of 5kN/m<sup>2</sup> with a deflection of no more than 10mm OR 1/200th of the span must be achieved).

Compliance with BS 4592-0:2006 + A1:2012 heavy duty uniform load is achieved (min. load of 7.5kN/m<sup>2</sup> with a deflection of no more than 10mm OR 1/200th of the span must be achieved).

### MOULDED FIBREGLASS GRATING- Deflection (d) table for uniform load

Span (mm)	Aperture (mm)	Thickness (mm)	Uniform Load (kN/m <sup>2</sup> )							Max. uniform load achievable before deflection exceeds 10mm OR 1/200th of the span
			1	1.20	2.4	3.6	5	7.5	9.6	
305	32 x 32	25	0.06(d)	0.08(d)	0.15(d)	0.23(d)	0.35(d)	0.5(d)	0.69(d)	2473 Kg/m <sup>2</sup> = 24.3 kN/m <sup>2</sup>
	32 x 32	38	0.02(d)	0.03(d)	0.05(d)	0.08(d)	0.16(d)	0.22(d)	0.21(d)	7130 Kg/m <sup>2</sup> = 69.9 kN/m <sup>2</sup>
457	32 x 32	25	0.15(d)	0.19(d)	0.39(d)	0.56(d)	0.84(d)	1.17(d)	1.52(d)	1466 Kg/m <sup>2</sup> = 14.4 kN/m <sup>2</sup>
	42 x 42	50	0.03(d)	0.03(d)	0.07(d)	0.11(d)	0.18(d)	0.26(d)	0.29(d)	7977 Kg/m <sup>2</sup> = 78.3 kN/m <sup>2</sup>
610	32 x 32	25	0.49(d)	0.61(d)	1.21(d)	1.84(d)	2.49(d)	3.69(d)	4.87(d)	607 Kg/m <sup>2</sup> = 6.0 kN/m <sup>2</sup>
	32 x 32	38	0.14(d)	0.18(d)	0.37(d)	0.55(d)	0.79(d)	1.12(d)	1.42(d)	2065 Kg/m <sup>2</sup> = 20.3 kN/m <sup>2</sup>
	42 x 42	50	0.08(d)	0.1(d)	0.19(d)	0.3(d)	0.49(d)	0.65(d)	0.79(d)	3726 Kg/m <sup>2</sup> = 36.6 kN/m <sup>2</sup>
914	32 x 32	25	2.26(d)	2.8(d)	5.62(d)	8.45(d)	11.36(d)	-	-	194 Kg/m <sup>2</sup> = 1.9 kN/m <sup>2</sup>
	42 x 42	50	0.35(d)	0.42(d)	0.87(d)	1.32(d)	1.84(d)	2.67(d)	3.51(d)	1267 Kg/m <sup>2</sup> = 12.4 kN/m <sup>2</sup>
1219	42 x 42	50	1.08(d)	1.35(d)	2.69(d)	4.05(d)	5.46(d)	8.50(d)	10.78(d)	547 Kg/m <sup>2</sup> = 5.4 kN/m <sup>2</sup>
1372	32 x 32	38	3.4(d)	4.25(d)	8.52(d)	12.95(d)	-	-	-	192 Kg/m <sup>2</sup> = 1.9 kN/m <sup>2</sup>
	42 x 42	50	1.73(d)	2.16(d)	4.34(d)	6.51(d)	8.76(d)	13.12(d)	-	382 Kg/m <sup>2</sup> = 3.7 kN/m <sup>2</sup>
1524	32 x 32	38	5.18(d)	6.46(d)	12.91(d)	-	-	-	-	139 Kg/m <sup>2</sup> = 1.4 kN/m <sup>2</sup>
	42 x 42	50	2.64(d)	3.29(d)	6.58(d)	9.9(d)	13.32(-d)	-	-	278 Kg/m <sup>2</sup> = 2.7 kN/m <sup>2</sup>



Compliance with BS 4592-0:2006 + A1:2012 general duty and heavy duty point load is achieved (min. load of 1.5kN with a deflection of no more than 10mm OR 1/200th of the span must be achieved).

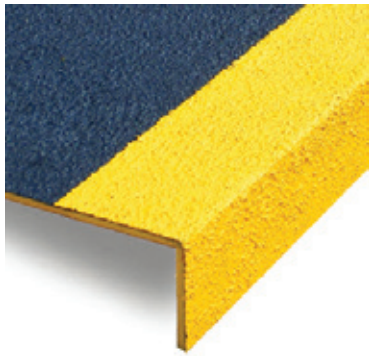
Compliance with BS 4592-0:2006 + A1:2012 is not achieved.

### MOULDED FIBREGLASS GRATING- Deflection (d) table for point load (Full panel)

Span (mm)	Aperture (mm)	Thickness (mm)	Point Load (kN)							Max point load achievable before deflection exceeds 10mm OR 1/200th of the span
			0.42	1.12	2.23	3.35	5	7.5	8.91	
305	32 x 32	25	0.13(d)	0.34(d)	0.66(d)	0.97(d)	1.46(d)	1.97(d)	2.64(d)	5.1kN = 520 Kg
	32 x 32	38	0.12(d)	0.28(d)	0.39(d)	0.56(d)	0.80(d)	1.12(d)	1.48(d)	9.3 kN = 950 Kg
457	32 x 32	38	0.15(d)	0.35(d)	0.67(d)	0.92(d)	1.33(d)	1.73(d)	2.23(d)	7.9 kN = 805 Kg
	42 x 42	50	0.03(d)	0.12(d)	0.26(d)	0.36(d)	0.52(d)	0.48(d)	0.69(d)	32.6 kN = 3325 Kg
610	32 x 32	25	0.78(d)	1.65(d)	3.43(d)	6.16(d)	7.89(d)	10.26(d)	12.88(d)	1.6 kN = 164 Kg
	32 x 32	38	0.3(d)	0.67(d)	1.3(d)	1.79(d)	2.54(d)	3.48(d)	4.61(d)	5.8 kN = 600 Kg
	42 x 42	50	0.11(d)	0.27(d)	0.56(d)	0.83(d)	1.21(d)	1.65(d)	2.16(d)	12.6 kN = 1285 Kg
914	32 x 32	25	1.83(d)	4.58(d)	9.85(d)	13.52(d)	-	-	-	0.86 kN = 88 Kg
	32 x 32	38	0.65(d)	1.56(d)	3.03(d)	4.27(d)	6.03(d)	9.13(d)	10.86(d)	3.3 kN = 339 Kg
	42 x 42	50	0.31(d)	0.78(d)	1.56(d)	2.35(d)	3.48(d)	4.75(d)	6.39(d)	6.3 kN = 651 Kg
1219	32 x 32	25	3.15(d)	7.82(d)	15.68(d)	-	-	-	-	0.64 kN = 66 Kg
	32 x 32	38	0.95(d)	2.41(d)	*4.71(d)	6.9(d)	10.03(d)	13.55(d)	-	*2.5 kN = 258 Kg
	42 x 42	50	0.57(d)	1.45(d)	2.88(d)	4.3(d)	6.35(d)	8.55(d)	11.34(d)	4.6 kN = 475 Kg
1372	32 x 32	38	1.49(d)	3.79(d)	7.58(d)	11.3(d)	-	-	-	*1.9 kN = 202Kg
	42 x 42	50	0.83(d)	2.09(d)	*4.15(d)	*6.21(d)	9.09(d)	-	-	*3.6 kN = 373Kg
1473	32 x 32	38	1.86(d)	4.72(d)	9.32(d)	-	-	-	-	*1.7 kN = 175 Kg
	42 x 42	50	1.07(d)	2.69(d)	*5.12(d)	7.76(d)	11.32(d)	-	-	*3.1 kN = 323 Kg
1524	42 x 42	50	1.21(d)	2.96(d)	*5.84(d)	8.57(d)	-	-	-	*2.9 kN = 301 Kg

\*For the results noted with \*, the point load capability is greater than 1.5kN and therefore satisfies the regulations for the given span.

However the corresponding uniform load capability does not satisfy the standard.



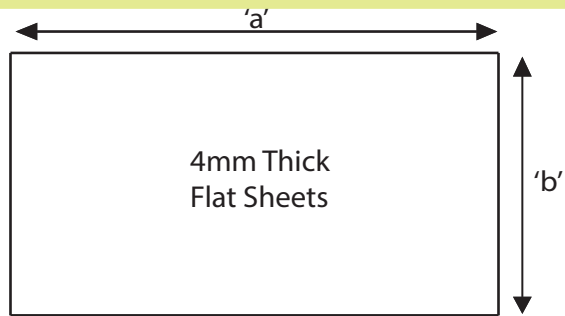
### Stair Tread Covers

Product Code	Tread Size(mm)	Weight (Kg)
ST106	Length 600 x 345 x 55	1.4
ST107	Length 800 x 345 x 55	1.8
ST108	Length 1200 x 345 x 55	2.7
ST109	Length 1800 x 345 x 55	4.2
ST110	Length 2400 x 345 x 55	6.3
ST111	Length 3000 x 345 x 55	7.8
ST112	Length 3660 x 345 x 55	9.5



### Nosing

Product Code	Nosing Size(mm)	Weight (Kg)
ST206	Length 600 x 55 x 55	0.5
ST207	Length 800 x 55 x 55	0.7
ST208	Length 1200 x 55 x 55	1.0
ST209	Length 1800 x 55 x 55	1.4
ST210	Length 2400 x 55 x 55	1.8
ST211	Length 3000 x 55 x 55	2.3
ST212	Length 3660 x 55 x 55	2.8



Product Code	Sheet Size(mm)	Weight (kg)
ST301 (Black RAL 9004)	'a' 2400 x 1200 'b'	18
ST302 (Black RAL 9004)	'a' 1200 x 1200 'b'	9
ST 303 (Yellow RAL 1003)	'a' 2400 x 1200 'b'	18
ST304 (Yellow RAL 1003)	'a' 1200 x 1200 'b'	9
ST305 (Grey RAL 7035)	'a' 2400 x 1200 'b'	18
ST306 (Grey RAL 7035)	'a' 1200 x 1200 'b'	9
ST512 (Hazard Stripes)	'a' 2400 x 1200 'b'	18
ST513 (Hazard Stripes)	'a' 1200 x 1200 'b'	9
ST514 (Hazard Chevrons)	'a' 2400 x 1200 'b'	18
ST515 (Hazard Chevrons)	'a' 1200 x 1200 'b'	9
ST516 (Keep Clear)	'a' 2400 x 1200 'b'	18
ST517 (Black Zebra)	'a' 600 x 1200 'b'	5
ST518 (White Zebra)	'a' 600 x 1200 'b'	5

For stair tread covers and nosing, use a high strength adhesive or mechanically fix by drilling and screwing. Adhesive is available from most hardware/DIY stores.



The above adhesive is recommended for fixing stair tread covers and nosing.

## **Cutting and grinding of GRP COSHH data (Control of Substances Hazardous to Health)**

### **Chemical composition and description**

Lockinex GRP grating is manufactured from Isophthalic unsaturated polyester resin.  
Surface grit consists of either quartz or carborundum

### **Hazard Identification**

Dust produced by cutting or grinding may cause severe irritation when in contact with skin or eyes.  
Inhalation of dust caused by cutting or grinding may cause respiratory irritation.

### **Handling, cutting & grinding**

To prevent the above hazards occurring, it is recommended that suitable PPE be worn at all times during the cutting and grinding process. Gloves, full length overalls (or similar), goggles & work boots should be worn to cover all exposed skin and eyes to prevent contact with GRP dust. A suitable dust mask or respiratory system should be worn to prevent dust inhalation.

If cutting with a jigsaw (or similar), use GRP specified cutting blades. Otherwise, use diamond cutting tools.

There is no work exposure limit (WEL) specified specifically for exposure to GRP. However, there is a WEL specified for nuisance dust of 10 mg/m<sup>3</sup> averaged over an 8-hour day, which would apply to GRP dust. Therefore suitable ventilation is required. LEV (local exhaust ventilation) may be required in confined areas and must be assessed by the cutting/grinding personnel.

### **Treatment**

If dust comes into contact with skin, wash irritated areas with warm soap and water.

If dust comes into contact with eyes, use sterile eye wash solution. If unavailable, wash eyes with warm water.

If respiratory irritation is experienced, leave the cutting/grinding area immediately and seek a well ventilated area.

If respiratory, skin or eye irritation continues at a severe level, seek medical attention.

### **Waste disposal**

Abide by local laws and procedures. Product is not considered hazardous waste.

### **Fire fighting**

Product will not burn when cutting or grinding.

Product will eventually burn if in direct contact with fire and has been tested in accordance with ASTM E84.

Extinguishing media, water, foam, A,B OR C extinguishers.