






# Moulded Grating Selection & Details

## Fibergrate® Moulded Grating

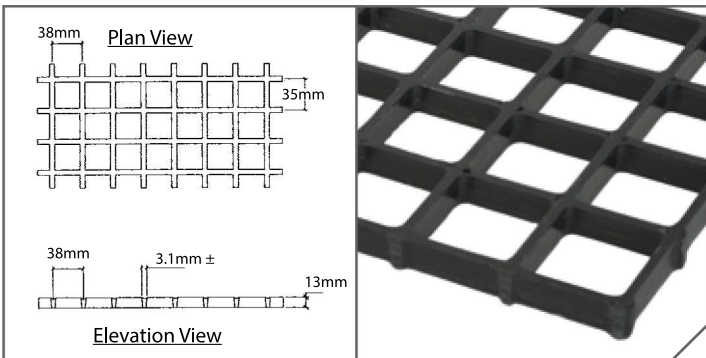
Brand	Depth (mm)	Mesh (mm)	Standard Panel Sizes (mm)	Wt. Per m <sup>2</sup>	Open Area
Airmesh®	13	38 x 38 square	1219 x 2438 ( <i>non-load carrying product</i> )	3.9 kg	87%
Multigrid®	13	51 x 51 square	1219 x 3658, 1219 x 4572 ( <i>must be fully supported</i> )	4.9 kg	82%
Micro-Mesh® 	13	Top 19±	1245 x 4007	10.3 kg	43%
Fibergrate®	16	25 x 102 rectangular	3658 x 1219	9.8 kg	58%
Fibergrate	19	25 x 102 rectangular	3048 x 914, 2438 x 1219	12.2 kg	69%
Fibergrate	19	38 x 38 square	914 x 3048, 1219 x 2438, 1219 x 3657	9.8 kg	70%
Micro-Mesh®	25	Top 19 sq, bottom 38 sq	1219 x 3657	14.2 kg	44.4%
Ecograte®62 	25	19 x 102 rectangular	1219 x 3657	14.6 kg	62%
Fibergrate	25	25 x 102 rectangular	3048 x 914, 2438 x 1219	12.2 kg	69%
Fibergrate	25	38 x 38 square	914 x 3048, 1219 x 2438, 1219 x 3657	12.2 kg	70%
Fibergrate	25	51 x 51 square	1219 x 3657	8.3 kg	76%
Fibergrate	32	38 x 38 square	914 x 3048, 1219 x 2438, 4' x 3657, 1524 x 3048	15.6 kg	70%
Fibergrate	38	38 x 38 square	914 x 3048, 1219 x 2438, 1219 x 3657, 1524 x 3048	18.6 kg	70%
High Load 	38	25 x 51 rectangular	1828 x 1219, 1219 x 2438	30.3 kg	48%
Micro-Mesh® 	38	Top 19 sq, Btm 38 sq	609 x 609, 1219 x 3657	22.0 kg	44.4%
Fibergrate	51	51 x 51 square	1219 x 3657	19.5 kg	72%
High Load 	51	25 x 51 rectangular	1828 x 1219, 1219 x 2438	41.0 kg	48%

See page 8 for surface selection.

## Grating Details

### Airmesh® 13mm Deep x 38mm Square Mesh

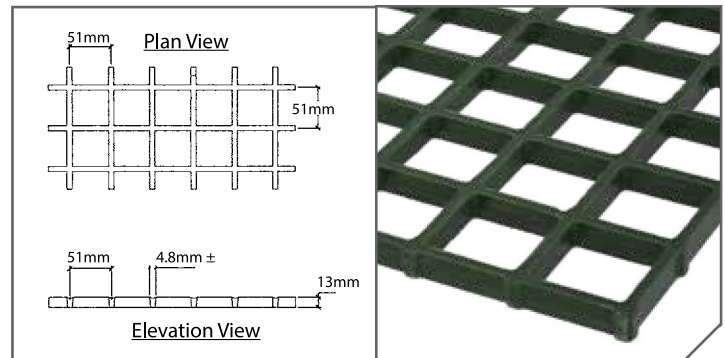
# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
26	3.2mm	87%	38mm	3.9 kg/m <sup>2</sup>



Designed for screening applications only

### Multigrid® 13mm Deep x 51mm Square Mesh

# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
20	4.8mm	82%	51mm	4.7 kg/m <sup>2</sup>



Must be fully supported in walking surface applications

# Moulded Grating Details

## Micro-Mesh® 13mm, 25mm & 38mm Deep x 19mm Sq Top Mesh



Depth	Square Top Mesh	Panel Size	# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
13mm	19mm ±	1245mm x 4007mm	26	6.4mm	43.0%	40mm	10.3 kg/m <sup>2</sup>
25mm	19mm	1219mm x 3658mm	26	6.4mm	44.4%	38mm	14.2 kg/m <sup>2</sup>
38mm	19mm	1219mm x 3658mm	26	6.4mm	44.4%	38mm	22 kg/m <sup>2</sup>

**Plan View**

**Elevation View**

Section Properties per m of Width: A = 3.62x10<sup>3</sup>mm<sup>3</sup> I = 3.9x10<sup>6</sup>mm<sup>4</sup> S = 5.2x10<sup>3</sup>mm<sup>3</sup>

Section Properties per m of Width: A = 4.95x10<sup>3</sup>mm<sup>3</sup> I = 3.1x10<sup>6</sup>mm<sup>4</sup> S = 2.0x10<sup>4</sup>mm<sup>3</sup>

Section Properties per m of Width: A = 6.04x10<sup>3</sup>mm<sup>3</sup> I = 6.9x10<sup>6</sup>mm<sup>4</sup> S = 3.6x10<sup>4</sup>mm<sup>3</sup>

## Ecograte®62



### 16mm Deep x 25mm x 102mm Rectangular Mesh\*

# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
39	7.9mm	58%	25mm	9.7 kg/m <sup>2</sup>

**Plan View**

Load Bars Run Width Direction

**Elevation View**

Section Properties per m of Width: A = 4.47x10<sup>3</sup>mm<sup>3</sup> I = 9.56x10<sup>6</sup>mm<sup>4</sup> S = 1.18x10<sup>4</sup>mm<sup>3</sup>

\*Not available with meniscus top surface (only grit)

### 25mm Deep x 19mm x 102mm Rectangular Mesh

# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
16	6.4mm	62%	19mm	14.6 kg/m <sup>2</sup>

**Plan View**

1219mm x 3658mm Finished Panel Size

**Elevation View**

Section Properties per m of Width: A = 7.58x10<sup>3</sup>mm<sup>3</sup> I = 4.07x10<sup>5</sup>mm<sup>4</sup> S = 308x10<sup>4</sup>mm<sup>3</sup>

### 25mm Deep x 25mm x 102mm Rectangular Mesh\*

Panel Sizes (mm)	# of Bars/ m of Width	Load Bar Width	Tie Bar Width	Open Area	Load Bar Centres	Approx. Weight
Design A 3048 x 914 2438 x 1219	39	9.5mm	6.4mm	69%	25mm	12.2 kg/m <sup>2</sup>

**Plan View**

Load Bars Run Width Direction

**Elevation View**

Section Properties per m of Width: A = 5.44x10<sup>3</sup>mm<sup>3</sup> I = 3.00x10<sup>6</sup>mm<sup>4</sup> S = 2.31x10<sup>4</sup>mm<sup>3</sup>

### 25mm Deep x 38mm Square Mesh

# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
26	6.4mm	70%	38mm	12.2 kg/m <sup>2</sup>

**Plan View**

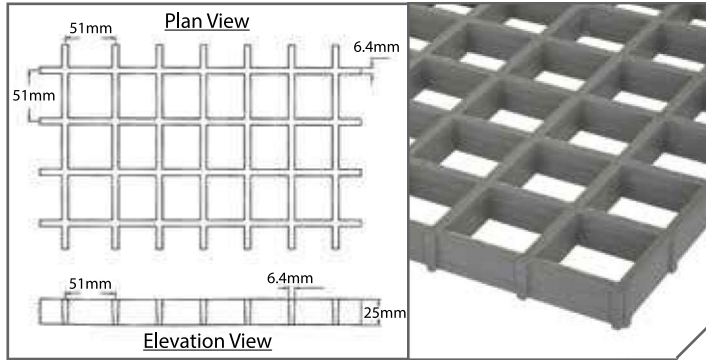
**Elevation View**

Section Properties per m of Width: A = 3.62x10<sup>3</sup>mm<sup>3</sup> I = 1.91x10<sup>5</sup>mm<sup>4</sup> S = 1.56x10<sup>4</sup>mm<sup>3</sup>

# Moulded Grating Details

## 25mm Deep x 51mm Square Mesh

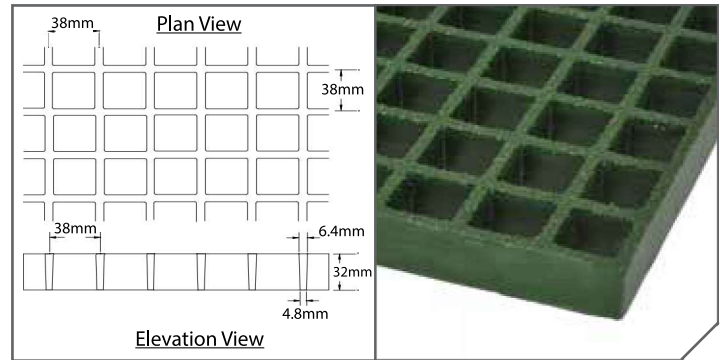
# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
20	6.4mm	76%	51mm	8.3 kg/m <sup>2</sup>



Section Properties per m of Width:  $A = 2.69 \times 10^3 \text{mm}^2$   $I = 1.50 \times 10^5 \text{mm}^4$   $S = 1.13 \times 10^4 \text{mm}^3$

## 32mm Deep x 38mm Square Mesh\*

# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
26	6.4mm	70%	38mm	15.6 kg/m <sup>2</sup>

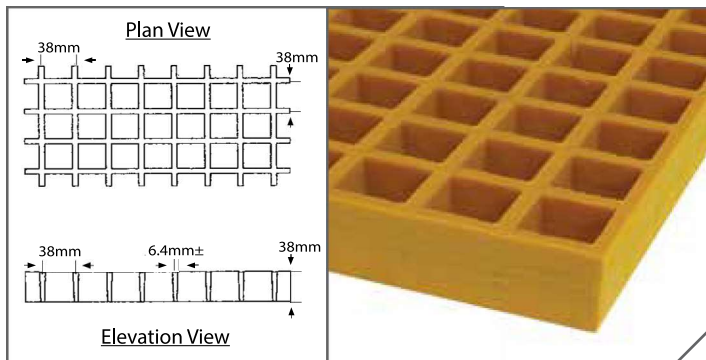


Section Properties per m of Width:  $A = 4.57 \times 10^3 \text{mm}^2$   $I = 4.37 \times 10^5 \text{mm}^4$   $S = 2.58 \times 10^4 \text{mm}^3$

\*Not available with meniscus top surface (only grit)

## 38mm Deep x 38mm Square Mesh

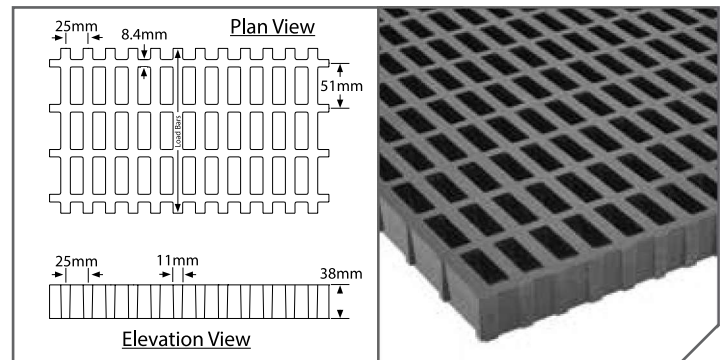
# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
26	6.4mm	70%	38mm	18.6 kg/m <sup>2</sup>



Section Properties per m of Width:  $A = 6.03 \times 10^3 \text{mm}^2$   $I = 6.96 \times 10^5 \text{mm}^4$   $S = 3.49 \times 10^4 \text{mm}^3$

## HLC 38mm Deep x 25mm x 51mm Rectangular Mesh

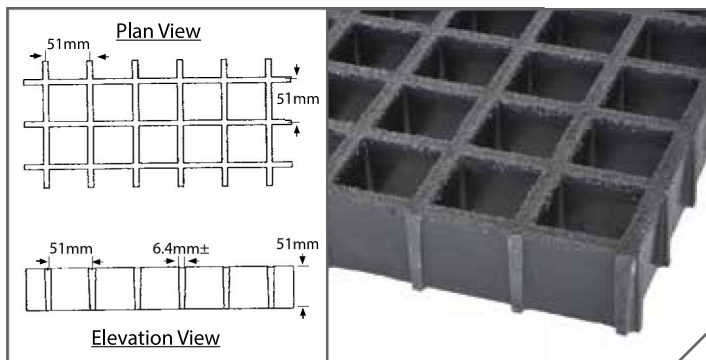
# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
39	11mm	48%	25mm	30.3 kg/m <sup>2</sup>



Section Properties per m of Width:  $A = 1.58 \times 10^4 \text{mm}^2$   $I = 1.90 \times 10^6 \text{mm}^4$   $S = 9.68 \times 10^4 \text{mm}^3$

## 51mm Deep x 51mm Square Mesh

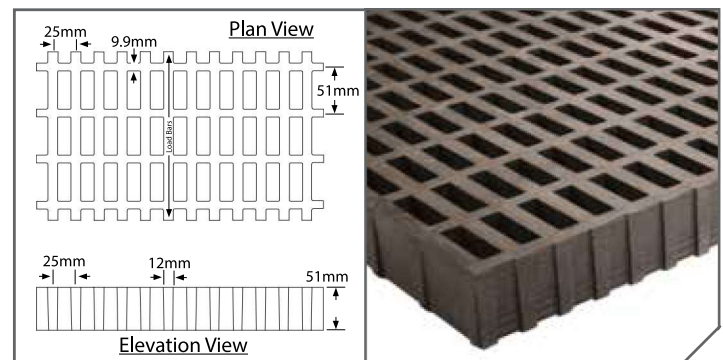
# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
20	6.4mm	72%	51mm	19.5 kg/m <sup>2</sup>



Section Properties per m of Width:  $A = 6.10 \times 10^3 \text{mm}^2$   $I = 1.31 \times 10^6 \text{mm}^4$   $S = 5.05 \times 10^5 \text{mm}^3$

## HLC 51mm Deep x 25mm x 51mm Rectangular Mesh

# of Bars/ m of Width	Load Bar Width	Open Area	Load Bar Centres	Approximate Weight
39	12mm	48%	25mm	41 kg/m <sup>2</sup>



Section Properties per m of Width:  $A = 2.17 \times 10^4 \text{mm}^2$   $I = 4.64 \times 10^6 \text{mm}^4$   $S = 1.76 \times 10^5 \text{mm}^3$

# Moulded Grating Resins

Corrosion in the workplace negatively impacts your bottom line. Each year, industrial plant executives eliminate expensive corrosion-related maintenance problems by switching to Fibergrate® moulded grating. Various applications present different requirements, so Fibergrate offers numerous standard resin systems to address multiple needs.

## Fibergrate® Standard Resins

**Vi-Corr®:** A superior vinyl ester resin developed for reliable performance in the toughest environments. It offers outstanding resistance to a wide range of highly corrosive situations, from caustic to acidic. In fact, no other resin system can match the performance of Vi-Corr in highly acidic environments. **Vi-Corr has replaced VE-25.** Colour: orange or dark grey. Flame spread: ASTM E84 rating of 25 or less. Certifications: DNV GL Type Approval No. TAF000003C; ABS Type Approval No. 01-HS34733-X; meets the USCG requirements for general fire rating\*.

**FGI-AM®:** This NEWLY improved food-grade isophthalic polyester resin system is infused with Microban® antimicrobial product protection which inhibits the growth of odour and stain-causing bacteria for the lifespan of the product. Fibergrate's FGI-AM resin offers the necessary corrosion resistance to meet the requirements of the food and beverage industry. This product is intended only for non-public health uses. Colour: light grey or green. Flame Spread: ASTM E84 rating of 25 or less. Certifications: USDA Approvable.



**Corvex®:** This newly improved isophthalic polyester resin system outperforms a number of competitive GRP and metal products, and meets the requirements for corrosion-resistance found in industrial, chemical processing and water/wastewater applications. **This upgraded formulation has replaced IFR, CP-84 and FS-25 resins.** Colour: yellow, dark grey, or dark green. Flame Spread: ASTM E84 rating of 25 or less. Certifications: meets the USCG requirements for general fire rating\*.

**XFR:** This extra Fire Retardant vinyl ester resin is recommended for use where the fire potential is high. Colour: dark grey. Flame Spread: ASTM E84 rating of 10 or less, a level exceeded by no other resin system. Certifications: meets the USCG requirements for general fire rating\*.

**ELS:** This Extremely Low Smoke resin is an acrylic-modified polyester system that is ideal for tunnel, offshore, mass transit and other confined space applications. ELS exhibits low ignitability, low smoke generation and extremely low smoke toxicity. Colour: dark grey. Flame Spread: ASTM E84: flame spread index of 25 or less, a smoke developed index of 100 or less and Fuel Contribution of 0. Certifications: DNV GL Type Approval No. TAF000003C; meets the USCG requirements for general fire rating\*.

**Super Vi-Corr®:** This family of resin systems consists of more than 30 custom formulas engineered to provide corrosion control solutions in applications that are too severe for conventional GRP and other building materials. Each Super Vi-Corr resin was engineered for the best possible performance in specific chemical and/or elevated temperature environments. These systems exist for aggressive chemical service in reagents like solvents, acidic oxidizers, chlorine dioxide, sodium hypochlorite and liquid desiccants. Certain formulas are also suited for elevated temperature applications up to 400° F. Super Vi-Corr gratings are typically used for packing hold-downs and support in environmental and process scrubber applications. Colour: natural - tan to beige. Flame Spread: non fire retardant, unless specified.

*\*For specific requirements and questions, please contact technical services.*

## Specialty

Fibergrate also offers specialty resins custom designed to meet your specific needs. These special formulations are developed to address unique and demanding services and applications, as well as niche market needs (Super Vi-Corr family of resins).

We can engineer resin systems to address temperature, flame, smoke and toxicity requirements. Our HSUV resin system was developed to address the intense UV effects found in offshore applications. Fibergrate's custom formulations with low smoke/toxicity properties were engineered with the United States Navy for below-deck marine service.

**Architectural Formulations:** Fibergrate's standard formulations are designed for industrial and corrosive applications. Special formulations and colours are required to meet the unique demands of architectural, fountain and pool projects. Please contact Fibergrate for additional information.

# Moulded Grating Surfaces and Options

## Slip-Resistant Surfaces

Slips and falls are the second leading cause of industrial accidents. According to the National Safety Council, each injury related lost work day can cost USD50,000 to USD100,000. That is why Fibergrate developed two slip-resistant surfaces for flooring and stair solutions. These surfaces include meniscus and integrally applied grit tops in the Fibergrate resins.

## Available Surfaces for Moulded Grating



**Meniscus Top:** The concave surface of Fibergrate® meniscus top grating provides superior slip-resistant footing in most environments including wet or oily conditions and is the standard surface for most Fibergrate moulded gratings.



**Integrally Applied Grit Top:** The optional grip top of Fibergrate® grating has a quartz grit which is integrally applied, cured and sealed onto the surface providing excellent slip-resistant footing.

**Please note** - The following moulded grating panels are **only available with the grit top surface** (meniscus top not an option):  
16mm deep, 25mm x 102mm rect. mesh, 3658mm x 1219mm panel; 32mm deep, 38mm square mesh

## Specialty Moulded Products

**GRP Conductive Surface:** Fibergrate® Conductive Surface Grating properties are based on the requirements found in [NFPA 77, Recommended Practice on Static Electricity, 2000 Edition](#). The specification values below are minimum values based upon the guidance of NFPA 77, and apply only when the product is clean and grounded. Fibergrate recommends a minimum of 4 grounding attachments at the corners of a section of grating.

- Average Surface Resistivity –  $8.2 \times 10^3$  ohms to  $3.3 \times 10^6$  ohms per lineal metre
- Average Resistance to Ground –  $<10^8$  ohms

**Fibergrate HF Moulded Grating:** Fibergrate has combined a premium-grade vinyl ester resin and exotic reinforcements to manufacture the only Moulded grating system suitable for service in harsh hydrofluoric acid applications. HF Moulded Grating, a non fire retardant system, can see service in applications that would cause premature failure in most traditional moulded grating systems.

**NSF® Standard 61-Certified Moulded Gratings:** Fibergrate now manufactures NSF Standard 61-Certified grating. NSF formulated moulded grating is available by special order in dark grey and light grey colours. moulded grating is also available in all of the moulded grating mesh patterns and grating thicknesses, except Ecograte® and 1219mm x 3658mm Micro-Mesh® panels. Our NSF Standard 61-Certified structural shapes, handrails, ladders and pultruded GRP components can be combined to create valuable, long-lasting stairways, walkways and platforms.

## Custom Moulded Products

Fibergrate has the capability to offer moulded grating configurations designed/manufactured to meet your unique application requirements. Fibergrate's custom services include special moulded grating configurations as well as custom hand-lay-up (HLU) products for industrial and architectural applications designed to meet your specific performance requirements.