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Fibreglass-Reinforced Plastics

FRP

Gratings

Aste® leads the Singapore market as a **One-Stop FRP supplier**, providing unparalleled value through comprehensive support that ensures every solution is both effortless and economical.





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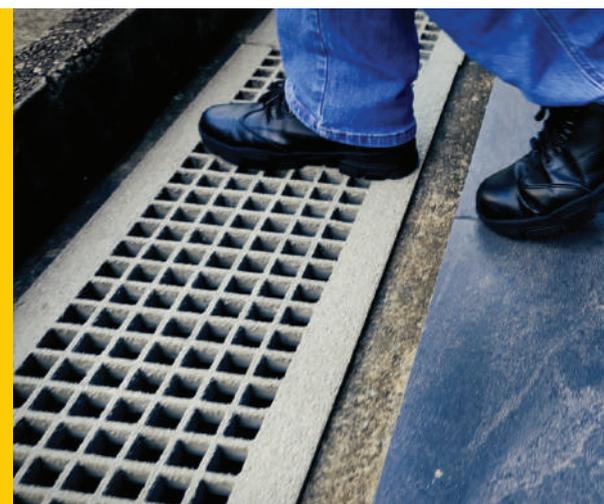
About Us

Since 1996, Aste® has been a trusted partner to the industrial and marine sectors. Our commitment to quality begins at the source, with every raw material carefully selected and rigorously evaluated.

By integrating proven industrial technologies and continuous innovation, we deliver FRP grating solutions that are safe, durable, and dependable in demanding environments.

We go beyond supplying products — **We Craft Solutions** precisely tailored to your operational requirements.

For project inquires, contact us at
+65 6862 1212 | Info@aste.com.sg





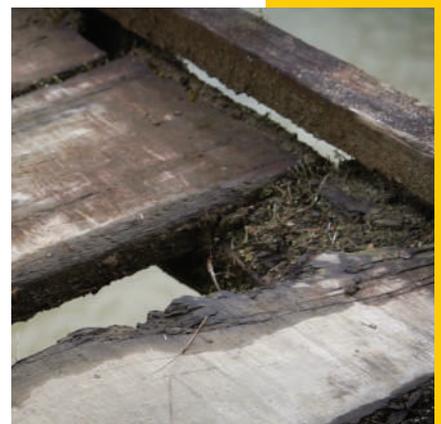
Why Choose FRP?

When durability, safety, and reliability matter, FRP provides a longer-lasting and more cost-effective solution than conventional materials.

FRP (Fibreglass-Reinforced Plastic) grating offers a **superior alternative** to traditional wood and metal grating in demanding industrial and marine environments. Unlike steel, FRP does not corrode, rust, or require ongoing repainting, making it ideal for corrosive, wet, or chemically exposed areas. Compared to wood, it will not rot, warp, or deteriorate under moisture and UV exposure.

Lightweight yet exceptionally strong, they enable easier installation while maintaining high load-bearing capacity. In addition, FRP is electrically and thermally non-conductive, slip-resistant, and low maintenance, helping to reduce overall lifecycle costs.

Engineered for long-term performance, FRP gratings are designed with a typical **service life of up to 20 years** under normal operating conditions.



Metal rusts. Wood rots. FRP lasts.

Benefits of FRP



1. Strength-to-Weight Optimisation

Our FRP gratings are engineered with 30-35% glass fibre by weight for molded types and 60-65% for pultruded types, delivering an exceptional strength-to-weight ratio.

By optimising glass content, fibre orientation, and the integration of continuous rovings with chopped strand mat reinforcement, the load-bearing performance of the structural bars can be tailored to meet specific application requirements.



2. Lightweight

FRP gratings are significantly lighter than conventional steel gratings, offering weight reductions of approximately 50-75%, depending on the load bar configuration.

The reduced dead load can lower overall project costs, particularly in weight-sensitive applications such as offshore platforms and deepwater tension-leg platforms (TLPs), where structural weight optimisation is critical.



3. Chemical Resistance

Our FRP gratings provide excellent resistance to a wide range of acids, alkalis, and corrosive chemicals. We offer a comprehensive selection of corrosion-resistant resin systems engineered to perform in environments ranging from mildly aggressive conditions to highly corrosive industrial applications.

Customers may select from various resin formulations to ensure optimal performance for their specific operating environment.



6. Thermally & Electrically Non-Conductive

Our FRP gratings are inherently thermally and electrically non-conductive, making them suitable for environments where electrical and heat-related hazards are present. Unlike steel, FRP has low thermal conductivity, significantly reducing surface heat transfer and minimizing secondary burn risks during fire exposure.

This inherent insulation property enhances operational safety by limiting rapid heat transmission through the grating surface compared to conventional metallic systems.



5. Ultra-Violet Resistance

Manufactured with UV-inhibited resin systems and a synthetic surface veil, our FRP gratings are designed for prolonged outdoor exposure.

The resin-rich surface enhances UV resistance and maintains colour stability for over 12 months without visible fading under normal conditions.



9. Low Maintenance

Our FRP grating is manufactured with resin and pigment fully integrated throughout the material, eliminating the need for surface coating or painting. As it is inherently corrosion-resistant, it will not rust.

When paired with our stainless steel fixing system, the complete walkway solution delivers long-term, low-maintenance performance.



7. Impact Resistance

Compared to conventional steel grating, our FRP grating offers superior impact resistance.

Its glass fibre-reinforced composite structure absorbs and dissipates impact energy effectively, while maintaining structural integrity under sudden or dynamic loads.



8. Non-Skid and Safety

The top surface of all load-bearing bars is permanently bonded with an abrasive grit layer, delivering superior slip resistance compared to conventional steel grating walking surfaces.



9. Fire Retardancy

Tested in accordance with ASTM E-84 (Steiner Tunnel Test), our FRP gratings achieve a flame spread rating of 25 or less.

Performance is comparable to UL 723, ANSI/NFPA 255, and UBC 8-1 standards, and the material satisfies the self-extinguishing requirements of ASTM D-635.



10. ADA Compliant

Our ADA-compliant moulded and pultruded gratings are designed with reduced opening sizes to provide safe, stable, and accessible pathways for wheelchair users.

Applications of FRP Grating



Industrial

Designed for demanding industrial environments where corrosion resistance, structural strength, and long-term durability are critical.

Commonly used in

- Chemical processing plant walkways
- Petrochemical and refinery platforms
- Oil & gas processing facilities
- Power generation plants
- Cooling towers and pump rooms
- Manufacturing plant mezzanines
- Plating and galvanizing facilities
- Fertilizer and pulp & paper plants
- Battery charging and acid handling areas
- Industrial trench and sump covers



Marine

Engineered to withstand aggressive saltwater and offshore conditions, its corrosion resistance, lightweight structure, and slip-resistant surface make it suitable for marine walkways and maintenance access areas.

Commonly used in

- Ship deck walkways
- Offshore platform access systems
- FPSO and rig maintenance platforms
- Dock and jetty walkways
- Coastal pumping stations
- Ballast and engine room access areas
- Marine loading terminals
- Port and harbor maintenance platforms

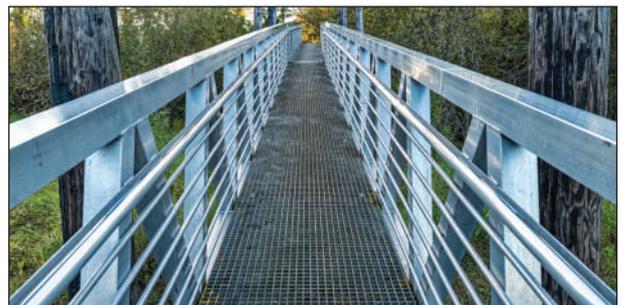


Infrastructure

Suitable for utility and civil infrastructure applications requiring low maintenance and high load-bearing performance.

Commonly used in

- Drainage and trench covers
- Cable and utility trenches
- Electrical substation flooring (non-conductive areas)
- Rooftop maintenance walkways
- Pedestrian service bridges
- Rail transit maintenance platforms
- Water and wastewater treatment plants
- Highway and roadside access platforms



Architectural & Public Applications

FRP grating combines safety, durability, and aesthetics, making it ideal for parks, landscaped walkways, public platforms, rooftop access routes, and recreational facilities. Its UV stability, corrosion resistance, and slip-resistant surface ensure reliable long-term outdoor performance.

Commonly used in

- Parks and landscaped walkways
- Public viewing decks
- Stadium and arena service platforms
- Swimming pool surrounds
- Commercial building maintenance paths
- Car park ventilation platforms
- Recreational boardwalks

Past Project References



Water Treatment Plant Drainage

Molded FRP grating installed for drainage walkways and equipment access in a water treatment facility. Designed to perform in wet, corrosive environments, the grating provides excellent chemical resistance, anti-slip safety, and long-term durability.

Lightweight and easy to install, the panels are precisely fitted around pipes and structures, ensuring safe access and low maintenance operation.

Key Features & Benefits

- High corrosion resistance to water and chemicals
- Anti-slip surface for wet conditions
- Lightweight with high strength for easy installation
- Non-conductive and non-sparking
- Low maintenance, no frequent replacement needed



School Area Drainage

Molded FRP micro-mesh grating installed as drainage covers in a school environment, providing a safe, slip-resistant, and heel-friendly surface for pedestrians.

The fine mesh design enhances safety while allowing effective water drainage in outdoor conditions.

Key Features & Benefits

- Micro-mesh surface for enhanced safety and heel-friendly walking
- Anti-slip performance for wet conditions
- High corrosion and weather resistance
- Lightweight and easy to install
- Low maintenance and long service life



Water Attraction Platform

Molded FRP grating installed within a water attraction fountain system, providing a durable and safe platform for maintenance access and water feature integration. The customized blue color enhances aesthetic integration with the water feature.

Designed for continuous exposure to water, moisture, and outdoor conditions, the grating ensures reliable long-term performance.

Key Features & Benefits

- Excellent resistance to water, chemicals, and corrosion
- Anti-slip surface for safe footing in wet environments
- High strength with lightweight structure
- Non-conductive and non-rusting
- Low maintenance with long service life
- Customizable colors to suit project design

Past Project References



Park Bridge Walkway

FRP micro-mesh grating installed as a pedestrian bridge deck, providing high slip resistance, durability, and weather resistance. The fine mesh surface is safe for high heels, ensuring comfortable and secure walking.

Lightweight and low maintenance for long-term outdoor performance.

Key Features & Benefits

- Micro-mesh surface for enhanced slip resistance and comfort
- Anti-slip performance in wet and outdoor conditions
- High corrosion and weather resistance for long-term use
- Lightweight for easy installation on bridge structures
- Low maintenance with no rust or coating required



Wafer Facility Walkway

FRP molded grating with solid top chequered plate installed as elevated walkways and stair systems within a wafer manufacturing facility.

Designed for controlled industrial environments, the system provides a stable, safe, and durable access platform around sensitive equipment and process areas.

Key Features & Benefits

- Solid top chequered surface for slip resistance
- Solid top prevents items from falling through openings
- Fully covered to prevent objects falling
- Lightweight with high strength
- Corrosion resistant for humid environments
- Non-conductive and low maintenance

Material System Selection Chart



Resin Types Available

Code	Resin Base	Property	Corrosion Resistance	FSI (ASTM E84)	Product	Max. Temp
VEFR	Vinyl Ester	Superior Corrosion Resistance and Fire Retardant	Excellent	Class 1-25 or Less	Molded and Pultrusion	110°C
IFR	Isophthalic Polyester	Industrial Grade Corrosion Resistance and Fire Retardant	Very Good	Class 1-25 or Less	Molded and Pultrusion	80°C
FG	Isophthalic Polyester	Food Grade Corrosion Resistance and Fire Retardant	Very Good	Class 1-25 or Less	Molded and Pultrusion	80°C
OFR	Orthophthalic Polyester	Moderate Corrosion Resistance and Fire Retardant	Moderate	Class 1-25 or Less	Molded	70°C



Fibreglass Rovings Available

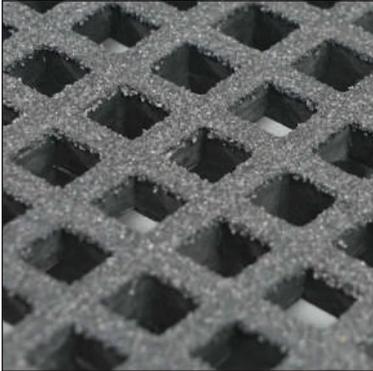
Type	TEX	Property	Product
E-Glass	2400 tex 4800 tex	Fast Resin Immersion and Good Impact Resistance	Molded and Pultrusion



Fillers Available

Type	Property	FSI (ASTM E84)	Product
Aluminium Hydroxide	Fire Retardant and Structural Reinforcement	Class 1-25 or Less	Molded and Pultrusion
Conductive Powder	Fast Resin Immersion and Good Impact Resistance	–	Molded

Selection Chart **Surface Finish**

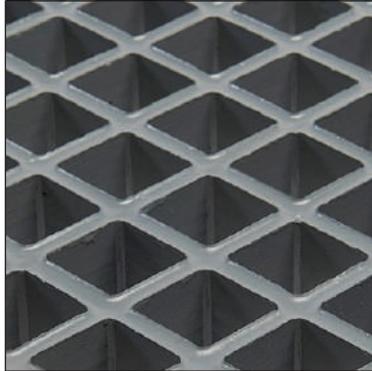


Gritted

Delivers maximum slip resistance through an integrally bonded abrasive layer.

Designed for environments exposed to moisture, oils, or chemical residues, it offers a high coefficient of friction and superior wear resistance under heavy traffic conditions.

Applicable to Molded grating, Pultruded grating, and Pultruded decking Panel.

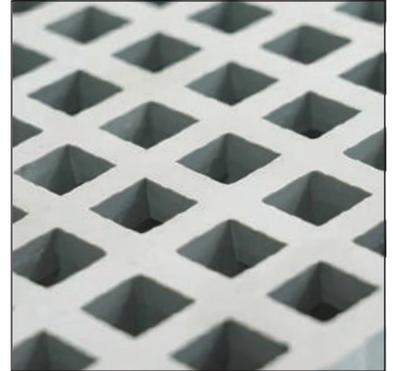


Concave

Provides inherent slip resistance through its moulded concave profile while maintaining full open-area drainage.

It allows for efficient cleaning in environments where debris or by-products may accumulate. However, its anti-slip performance is lower compared to gritted surfaces in heavily contaminated or oily conditions.

Applicable to Molded grating.



Smooth

Offers a flat, non-textured finish suitable for dry, controlled environments where slip resistance is not critical.

The smooth surface facilitates easy washdown and cleaning but is not recommended for wet or hazardous areas.

Applicable to Molded grating and Pultruded grating.

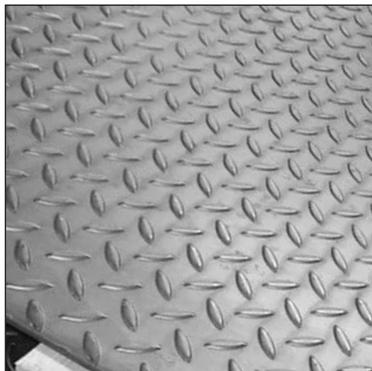


Solid Top Gritted

Combines a closed surface design with an abrasive anti-slip finish, preventing small objects or contaminants from falling through while maintaining high traction.

Ideal for containment areas and mezzanine flooring where both safety and debris control are required.

Applicable to Molded grating and Pultruded grating.

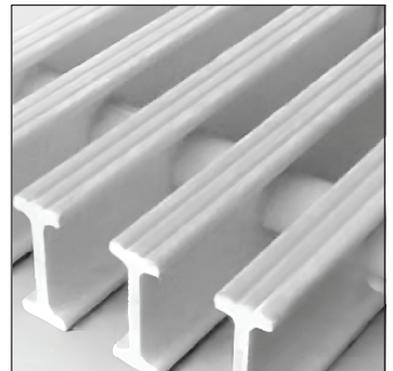


Solid Top Chequered Plate

Incorporates a raised patterned profile to improve traction and structural rigidity.

Suitable for light-to-moderate duty applications where moderate slip resistance is sufficient and an industrial aesthetic is preferred.

Applicable to Molded grating, Pultruded grating.



Corrugated

Features longitudinal ribs to enhance surface grip and promote directional drainage.

Commonly applied in sloped installations or ramps where improved water shedding and additional stiffness are required.

Applicable to Pultruded grating.

Chemical Resistance Chart

Chemical Environment	Concentration (%)	Temperature (°C)	Vinyl Ester	Isophthalic	Orthophthalic
Acetic Acid	50	MAX	C	F	C
Acetone	100	23	I	I	N
Aluminum Hydroxide	ALL	MAX	C	C	C
Aluminum Chloride	ALL	MAX	C	C	C
Ammonium Chloride	ALL	48	C	C	C
Ammonium Bicarbonate	15	48	C	F	F
Ammonium Bicarbonate	50	48	F	F	I
Ammonium Hydroxide	20	26	I	N	N
Ammonium Sulfate	ALL	48	C	C	F
Barium Sulfate	ALL	MAX	C	C	C
Benzene	100	65	I	N	N
Benzoic Acid (SAT)	SAT	MAX	C	F	C
Borax (SAT)	SAT	MAX	C	F	F
Calcium Carbonate	ALL	MAX	C	F	C
Calcium Hydroxide	25	MAX	F	F	I
Calcium Hypochlorite	ALL	MAX	I	I	N
Calcium Nitrate	ALL	MAX	C	C	C
Carbon Tetrachloride	100	26	I	N	N
Chlorine – Dry Gas	ALL	MAX	C	F	F
Chlorine Water (SAT)	SAT	48	I	N	N
Chromic Acid	50	65	I	N	N
Citric Acid	ALL	MAX	C	C	C
Copper Chloride	ALL	MAX	C	C	C
Copper Cyanide	ALL	60	F	I	I
Copper Nitrate	ALL	MAX	C	C	C
Crude Oil (Sweet or Sour)	ALL	MAX	C	C	C
Diesel Fuel	ALL	37	C	C	C
Ethanol	10	48	C	F	F
Ethanol	50	48	C	I	I
Ethanol Glycol	ALL	65	C	F	F
Ferric Chloride	100	MAX	C	C	C
Ferric Nitrate	ALL	MAX	C	C	C
Ferrous Chloride	ALL	MAX	C	C	C
Fluorosilicic Acid	10	23	F	F	I
Formaldehyde (0-50%)	50	48	F	I	I
Gasoline	ALL	48	C	F	F
Glucose	ALL	48	C	C	C

MAX. Temperature
Vinyl Ester grating: 85°C
Isophthalic grating: 70°C
Orthophthalic grating: 65°C

Keys:

C – Suitable for continuous exposure to the listed chemical environment at the specified temperature.

F – Suitable for frequent exposure to splashes or spills of the listed chemical environment at the specified temperature.

I – Suitable for infrequent exposure to splashes or spills of the listed chemical environment at the specified temperature, provided the chemical is promptly cleaned or rinsed from the grating surface.

N – Not recommended for use at the specified chemical concentrations and temperatures.

The corrosion resistance information provided above is intended for general reference only. Test data supplied by resin manufacturers indicate that the specified resin systems are capable of withstanding the listed corrosive environments. While Aste® believes this information to be accurate and reliable, no warranty, express or implied, is made regarding specific performance under particular service conditions.

Evaluation and testing under actual operating environments are recommended prior to application. Any liability arising from breach of warranty, negligence, or otherwise shall be limited to the purchase price of the material supplied by Aste®.

Chemical Resistance Chart

Chemical Environment	Concentration (%)	Temperature (°C)	Vinyl Ester	Isophthalic	Orthophthalic
Glycerin	100	MAX	C	F	F
Hydrobromic Acid	50	MAX	I	I	N
Hydrobromic Acid	10	MAX	F	F	F
Hydrobromic Acid	37	MAX	I	I	I
Hydrogen Peroxide	30	26	F	N	N
Lactic Acid	100	MAX	C	C	C
Lithium Chloride (SAT)	SAT	MAX	N	N	N
Magnesium Chloride	ALL	MAX	C	C	C
Magnesium Nitrate	ALL	MAX	C	C	C
Magnesium Sulphate	ALL	MAX	C	C	C
Mercuric Chloride	ALL	MAX	C	C	C
Mercurous Chloride	ALL	MAX	C	F	F
Nickle Chloride	ALL	MAX	C	C	C
Nickle Sulphate	ALL	MAX	C	C	C
Nitric Acid	20	48	I	I	I
Oxalic Acid	ALL	65	C	F	F
Perchloric Acid	30	32	I	I	I
Phosphoric Acid	80	MAX	C	C	F
Potassium Chloride	ALL	MAX	C	C	C
Potassium Dichromate	ALL	MAX	C	C	C
Potassium Nitrate	ALL	MAX	C	C	C
Potassium Sulfate	ALL	MAX	C	C	C
Propylene Glycol	ALL	MAX	C	F	F
Sodium Acetate	ALL	MAX	C	C	C
Sodium Bisulfate	ALL	26	C	I	I
Sodium Bromide	ALL	26	C	C	C
Sodium Cyanide	ALL	26	F	I	I
Sodium Hydroxide	10	MAX	I	N	N
Sodium Hydroxide	50	MAX	N	N	N
Sodium Nitrate	ALL	MAX	C	C	C
Sodium Sulfate	ALL	MAX	C	C	C
Sulfuric Acid	10	MAX	C	F	F
Sulfuric Acid	25	MAX	F	F	I
Sulfuric Acid	75	37	I	I	N
Tartaric Acid	ALL	MAX	C	F	F
Vinegar	ALL	MAX	C	F	F
Water (Distilled)	ALL	MAX	C	C	C
Zinc Nitrate	100	MAX	C	C	C
Zinc Sulfate	100	MAX	C	C	C

MAX. Temperature
Vinyl Ester grating: 85°C
Isophthalic grating: 70°C
Orthophthalic grating: 65°C

Keys:

C – Suitable for continuous exposure to the listed chemical environment at the specified temperature.

F – Suitable for frequent exposure to splashes or spills of the listed chemical environment at the specified temperature.

I – Suitable for infrequent exposure to splashes or spills of the listed chemical environment at the specified temperature, provided the chemical is promptly cleaned or rinsed from the grating surface.

N – Not recommended for use at the specified chemical concentrations and temperatures.

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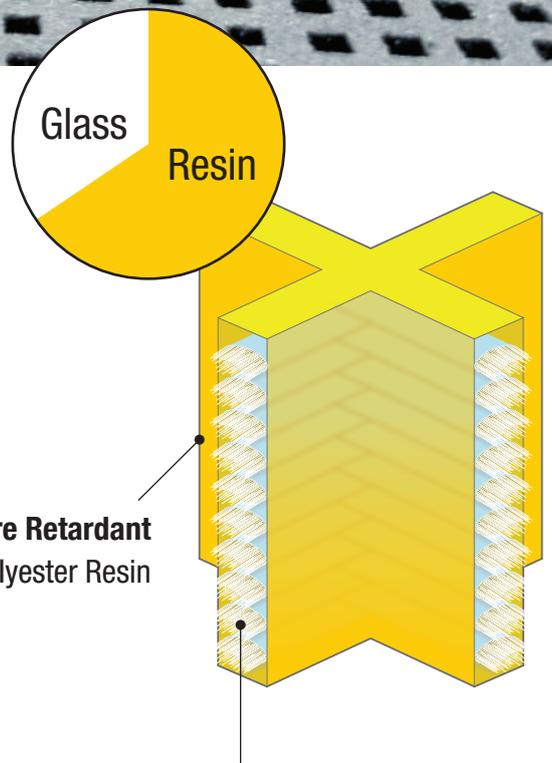


FRP Molded Grating

Superior corrosion resistance, strength, fire-retardant performance, and long-term durability in harsh environments.

Our molded FRP grating is produced by embedding continuous fibreglass rovings and chopped strand reinforcements within a thermosetting polyester resin matrix, then thermally cured in a precision mold. With approximately **30–35%** fibreglass content by weight, it delivers balanced bi-directional strength and reliable load distribution.

Resin systems are formulated with fire-retardant additives to achieve a Class 1 flame spread rating of 25 or less in accordance with ASTM E-84. UV inhibitors and antioxidants are integrated to enhance resistance against ultraviolet exposure and environmental aging, ensuring long-term performance in outdoor and corrosive environments.



UV Inhibitor Fire Retardant
Vinyl Ester or Polyester Resin

Crisscross Fibreglass Roving Bonded with Resin
30-35% Fibreglass Content



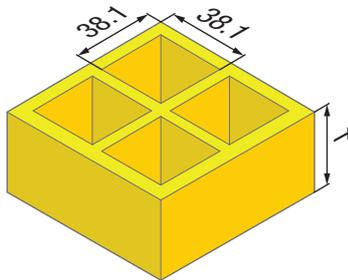
Extra Corrosion Resistance

↕ Bi-Directional Strength

Sizing Chart FRP Molded Grating

38.1 x 38.1mm Mesh

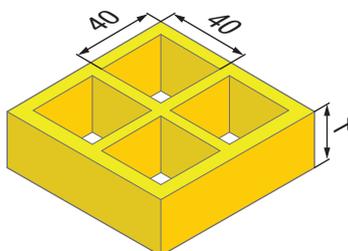
Unit: mm



Depth (T)	Bar Thickness	Standard Dimension	Weight (kg/m ²)	Open Ratio (%)
13	6.0/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	6.1	78
15	6.0/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	7.1	78
20	6.5/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	9.6	68
25	6.5/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	12.3	68
30	6.5/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	14.6	68
38	7.0/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	19.5	68
40	7.0/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	20.6	68
50(HLC)	9.5/7.5	1220x3660, 1220x2400 921x3050	40.0	56
60(HLC)	10.5/8.5	1220x3660, 1220x2400 921x3050	48.0	54
65(HLC)	11.0/9.0	1220x3660, 1220x2400 921x3050	52.0	52

40 x 40mm Mesh

Unit: mm

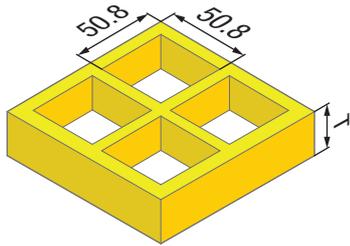


Depth (T)	Bar Thickness	Standard Dimension	Weight (kg/m ²)	Open Ratio (%)
25	7.0/5.0	1007x3007, 1007x4007 1247x3687, 1527x4047	12.3	67
30	7.0/5.0	1007x3007, 1007x4007 1247x3687, 1527x4047	14.5	67
40	7.0/5.0	1007x3007, 1007x4007 967x2967, 1527x4047	19.2	67

FRP Molded Grating Sizing Chart

50.8 x 50.8 mm Mesh

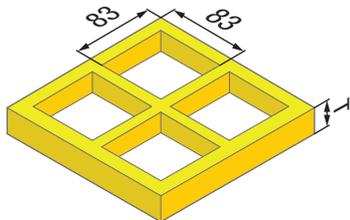
Unit: mm



Depth (T)	Bar Thickness	Standard Dimension	Weight (kg/m ²)	Open Ratio (%)
13	6.0/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	5.8	82
15	7.0/6.0	1524x4000, 1220x3660 1220x2440, 921x3050	6.8	82
25	7.5/6.0	1220x3660, 1220x2440	11.8	78
40	7.0/5.0	1788x4531, 1220x3660 1220x2440, 921x3050	17.8	78
50	7.5/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	21.5	78
50	8.0/6.0	1524x4000, 1220x3660 1220x2440, 921x3050	23.5	78

83 x 83 mm Mesh

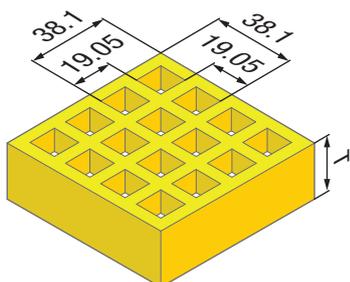
Unit: mm



Depth (T)	Bar Thickness	Standard Dimension	Weight (kg/m ²)	Open Ratio (%)
25	7.0/5.0	1007x4007, 1173x4007	6.1	84
40	7.0/5.0	1007x4007, 1173x4007	9.6	84

19.05 x 19.05 mm/38.1 x 38.1 mm Mini Mesh

Unit: mm



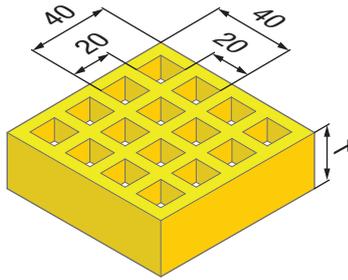
Depth (T)	Bar Thickness	Standard Dimension	Weight (kg/m ²)	Open Ratio (%)
25	6.5/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	16.8	30
30	6.5/5.0	1524x4000, 1220x3660 1220x2440, 921x3050	18.5	30
38	6.5/5.0	1220x3660, 1220x2440 921x3050	23.5	30

 ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Sizing Chart FRP Molded Grating

20 x 20 mm/40 x 40 mm Mini Mesh

Unit: mm

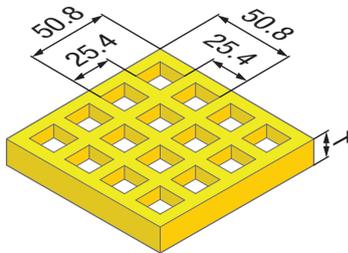


Depth (T)	Bar Thickness	Standard Dimension	Weight (kg/m ²)	Open Ratio (%)
14	7.0/5.0	1247x4047, 1247x3687 1007x4007, 1007x3007	10.5	42
22	7.0/5.0	1524x4047, 1247x3687 1007x4007, 1007x3007	14.5	42
30	7.0/5.0	1524x4047, 1247x3687 1007x4007, 1007x3007	18.0	42
40	7.0/5.0	1524x4047, 1247x3687 1007x4007, 1007x3007	23.5	42
60	7.0/5.0	1007x3007, 1007x2007	38.5	42

 ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

25.4 x 25.4 mm/50.8 x 50.8 mm Mini Mesh

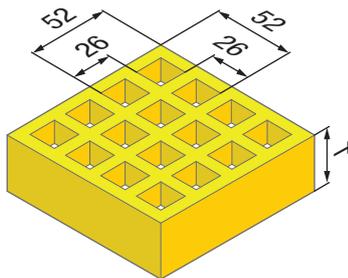
Unit: mm



Depth (T)	Bar Thickness	Standard Dimension	Weight (kg/m ²)	Open Ratio (%)
15	6.5/5.0	1220x3660, 1220x2440 921x3050	7.5	55
50	8.0/6.0	1524x4000, 1220x3660 1220x2440, 921x3050	28.5	55

26 x 26 mm/52 x 52 mm Mini Mesh

Unit: mm

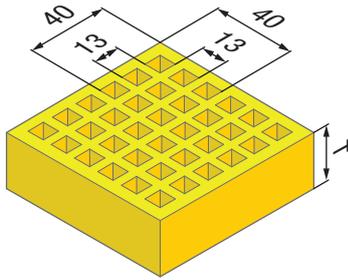


Depth (T)	Bar Thickness	Standard Dimension	Weight (kg/m ²)	Open Ratio (%)
30	6.5/5.0	1532x4050	15.5	60
38	6.5/5.0	1205x4011	19.5	60

FRP Molded Grating Sizing Chart

13x13 mm/40x40 mm Mini Mesh

Unit: mm

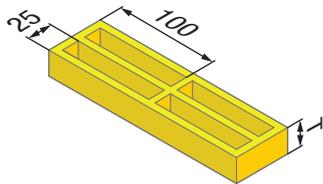


Depth (T)	Bar Thickness	Standard Dimension	Weight (kg/m ²)	Open Ratio (%)
22	7.0/5.0	1527x4047, 1247x4047 1007x4007, 1007x3007	15.0	30
25	7.0/5.0	1527x4047, 1247x4047 1007x4007, 1007x3007	17.5	30
30	7.0/5.0	1527x4047, 1247x4047 1007x4007, 1007x3007	19.0	30
40	7.0/5.0	1527x4047, 1247x4047 1007x4007, 1007x3007	25.0	30

 ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

25 x 100 mm Mesh

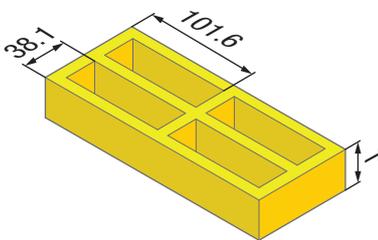
Unit: mm



Depth (T)	Bar Thickness	Standard Dimension	Span Direction	Weight (kg/m ²)	Open (%)
25	7.0/5.0	1007x4007, 1007x3007	Width	13.0	67
30	7.0/5.0	1007x4007, 1007x3007	Width	15.6	67

38.1 x 101.6 mm Mesh

Unit: mm

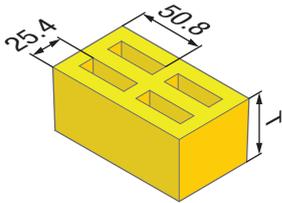


Depth (T)	Bar Thickness	Standard Dimension	Span Direction	Weight (kg/m ²)	Open (%)
38	8.0/6.0	1220x3660, 921x3050	Length	13.0	65

Sizing Chart FRP Molded Grating

25.4 x 50.8 mm Mesh

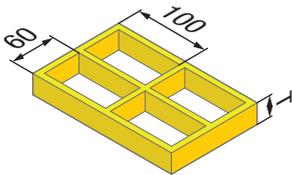
Unit: mm



Depth (T)	Bar Thickness	Standard Dimension	Span Direction	Weight (kg/m ²)	Open (%)
38	11.0/9.0	1220x1830, 1220x3660	Width/Length	30.7	49
38	8.0/6.0	1220x1830, 1220x3660	Width/Length	41.8	48

60 x 100 mm Mesh

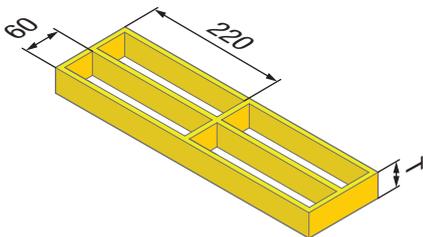
Unit: mm



Depth (T)	Bar Thickness	Standard Dimension	Span Direction	Weight (kg/m ²)	Open (%)
28	6.5/5.0	1500x4000, 1500x2000	Length	7.2	78

60 x 220 mm Mesh

Unit: mm



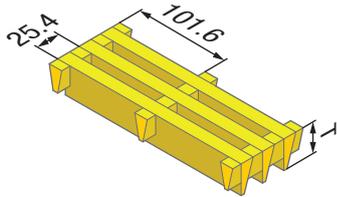
Depth (T)	Bar Thickness	Standard Dimension	Span Direction	Weight (kg/m ²)	Open (%)
40	6.3/5.0	1788x4476, 1788x2238	Length	8.8	67

FRP Molded Grating Sizing Chart

25.4 x 101.6 mm Mesh



Unit: mm

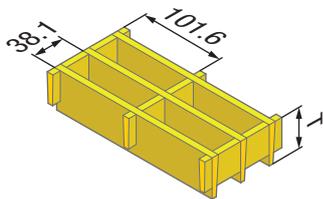


Depth (T)	Bar Thickness	Standard Dimension	Span Direction	Weight (kg/m ²)	Open (%)
38	15.0/5.0	1220x3660	Length	21.0	62

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

38.1 x 101.6 mm Mesh

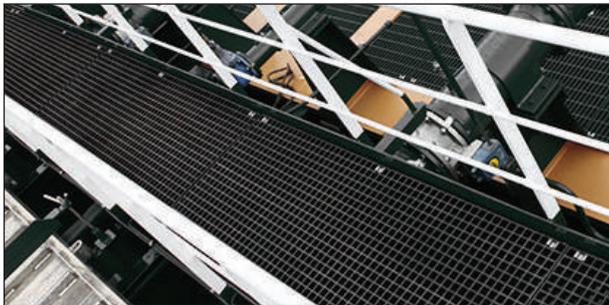
Unit: mm



Depth (T)	Bar Thickness	Standard Dimension	Span Direction	Weight (kg/m ²)	Open (%)
50	8.0/5.0	1220x3660	Length	15.3	68

Special Designs **FRP Molded Grating**

Besides our standard molded FRP gratings, we also provide custom-engineered solutions tailored to meet specific project requirements and specialized application demands.



Conductive Grating/Anti-static

Conductive FRP grating is primarily used in high-tech electronic industries, munitions and arsenal manufacturing facilities, and other static-sensitive environments where electrostatic discharge (ESD) may damage sophisticated equipment or create ignition risks.

The surface electrical resistance of the conductive grating typically ranges from 1×10^5 to 5×10^5 ohms, enabling controlled dissipation of static electricity.

Translucent Grating

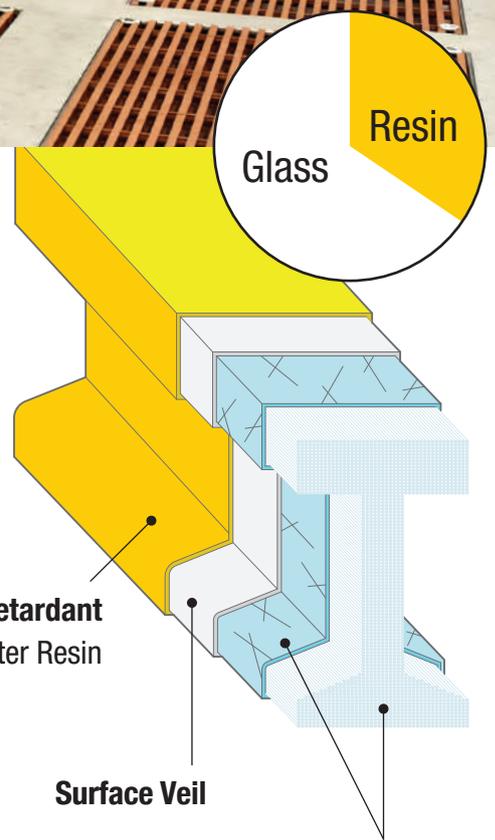
Translucent FRP grating is manufactured using clear or lightly pigmented resin systems with minimal color additives. Integrated UV inhibitors help maintain long-term colour stability under outdoor exposure. Due to its higher resin content, translucent grating offers enhanced chemical resistance compared to standard coloured molded grating.

It is commonly used for walkways, architectural features, fencing, and applications requiring superior corrosion and chemical resistance while allowing light transmission.



For more information on our unique molded grating solutions, contact us at

+65 6862 1212 | Info@aste.com.sg



FRP Pultruded Grating

Exceptional structural strength, corrosion resistance, fire-retardant performance, and reliable long-span durability in demanding environments.

Our pultruded FRP grating is manufactured using a continuous pultrusion process, producing high-strength I-bars or T-bars that are precision-drilled, assembled with cross rods, and bonded using structural epoxy resin. With a fibreglass reinforcement content of approximately **60–65%** by weight, pultruded grating delivers exceptional strength-to-weight performance and is particularly well-suited for heavy load and long-span applications.

Resin systems are formulated with fire-retardant additives to achieve a Class 1 flame spread rating of 25 or less in accordance with ASTM E-84. UV inhibitors and antioxidants are integrated to enhance resistance against ultraviolet exposure and environmental aging, ensuring long-term performance in outdoor and corrosive environments.

UV Inhibitor Fire Retardant
Vinyl Ester or Polyester Resin

Surface Veil

Continuous Strand Mat with Fibreglass Roving
60-65% Fibreglass Content



Extra Structural Strength
↑ Uni-Directional Strength

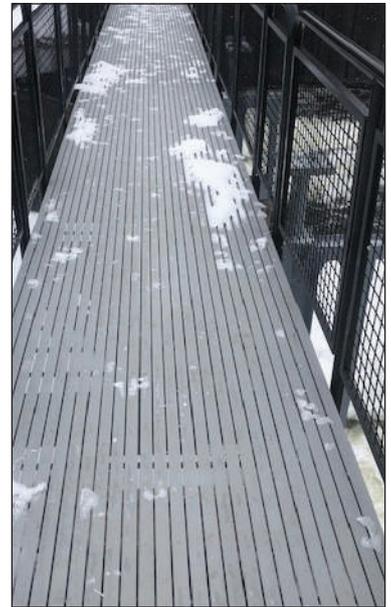
Sizing Chart FRP Pultruded Grating

Pedestrian-Series Grating

Engineered specifically for pedestrian traffic applications, this series provides reliable strength and safety for walkways and access areas.

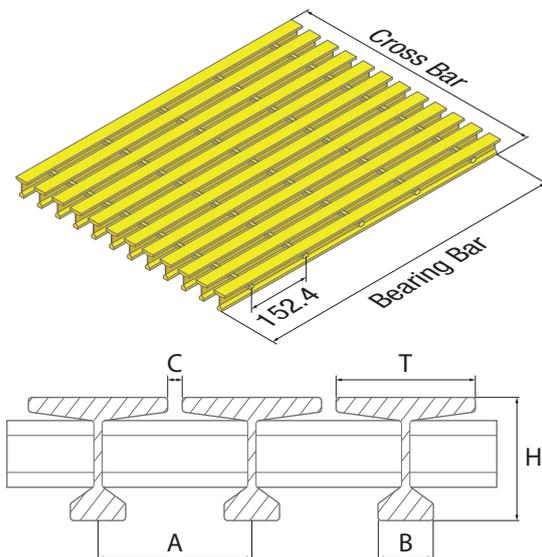
Manufactured using wide T-Bar configuration in 25mm and 38mm heights, the grating is available in various configurations and panel sizes to suit project requirements.

The 25mm pultruded pedestrian grating is ideal for standard walkways and access routes with frequent foot traffic. The 38mm option offers significantly higher stiffness, approximately three times that of the 25mm profile, making it suitable for wider spans up to 1800mm or applications with strict deflection limits.



Product Code

T-1210 – 25mm Height, 12% Open Area 



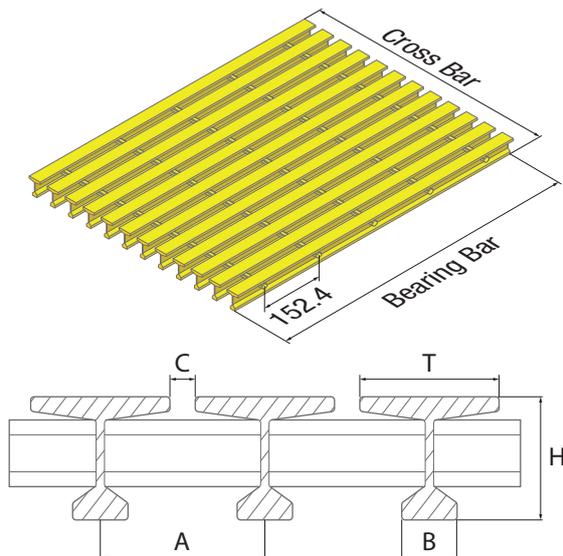
No. Of Bearing Bars Per 1 Meter Width	23
Bearing Bar Width (T/B)	38mm / 15mm
Bearing Bar Center (A)	43.3mm
Cross Bar Center	152.4mm
Opening (C)	5.2mm
Weight	14.5kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

 ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

FRP Pultruded Grating Sizing Chart

Product Code

T-1810 – 25mm Height, 18% Open Area

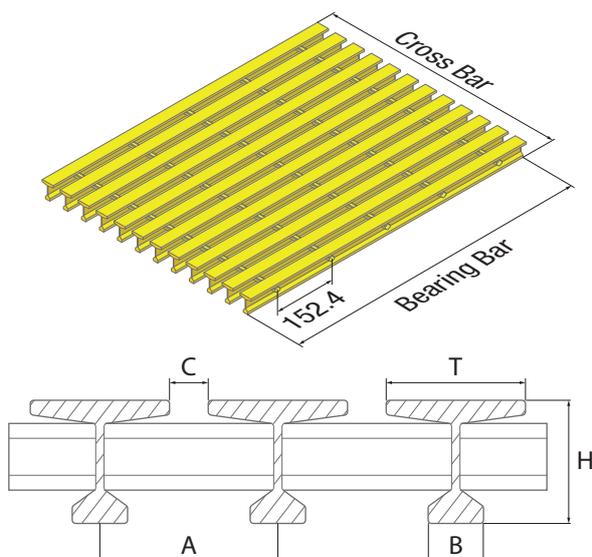


No. Of Bearing Bars Per 1 Meter Width	19
Bearing Bar Width (T/B)	41.3mm / 15mm
Bearing Bar Center (A)	50.8mm
Cross Bar Center	152.4mm
Opening (C)	9.5mm
Weight	13.8kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Product Code

T-2510 – 25mm Height, 25% Open Area



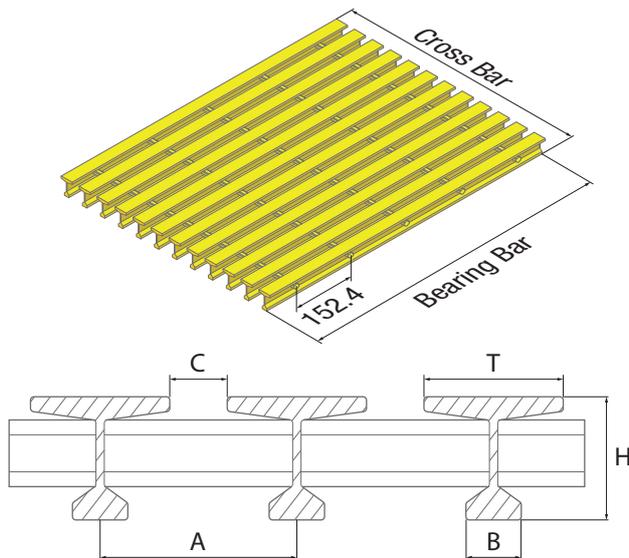
No. Of Bearing Bars Per 1 Meter Width	19
Bearing Bar Width (T/B)	38mm / 15mm
Bearing Bar Center (A)	50.8mm
Cross Bar Center	152.4mm
Opening (C)	12.7mm
Weight	13.6kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Sizing Chart FRP Pultruded Grating

Product Code

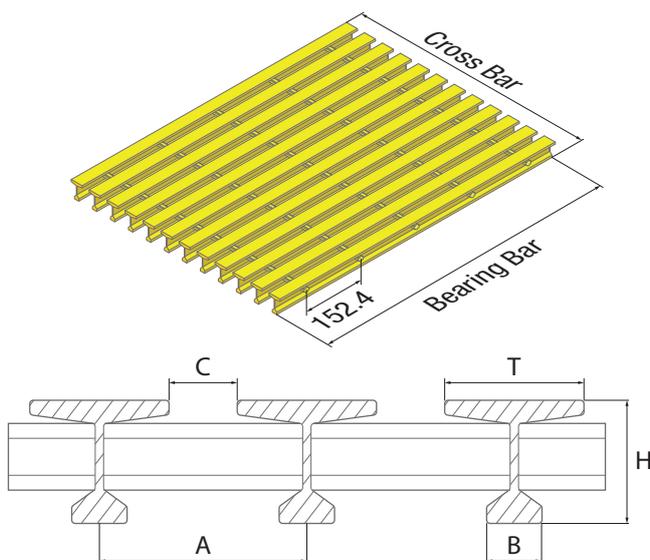
T-3310 – 25mm Height, 33% Open Area



No. Of Bearing Bars Per 1 Meter Width	16
Bearing Bar Width (T/B)	41.3mm / 15mm
Bearing Bar Center (A)	61mm
Cross Bar Center	152.4mm
Opening (C)	19.7mm
Weight	11.2kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

Product Code

T-3810 – 25mm Height, 38% Open Area

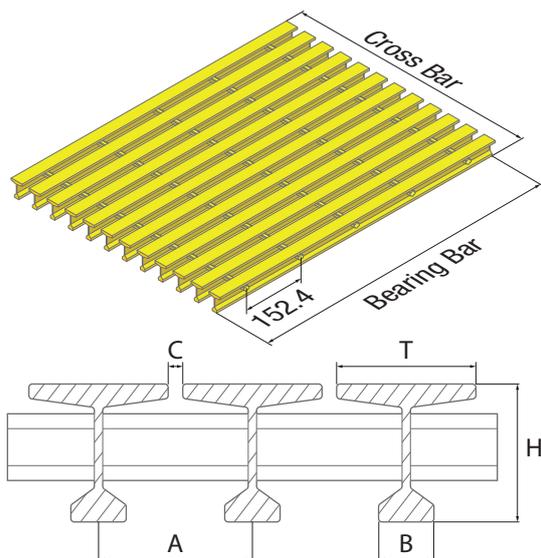


No. Of Bearing Bars Per 1 Meter Width	16
Bearing Bar Width (T/B)	38mm / 15mm
Bearing Bar Center (A)	61mm
Cross Bar Center	152.4mm
Opening (C)	23mm
Weight	10.2kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

FRP Pultruded Grating Sizing Chart

Product Code

T-1215 – 38mm Height, 12% Open Area

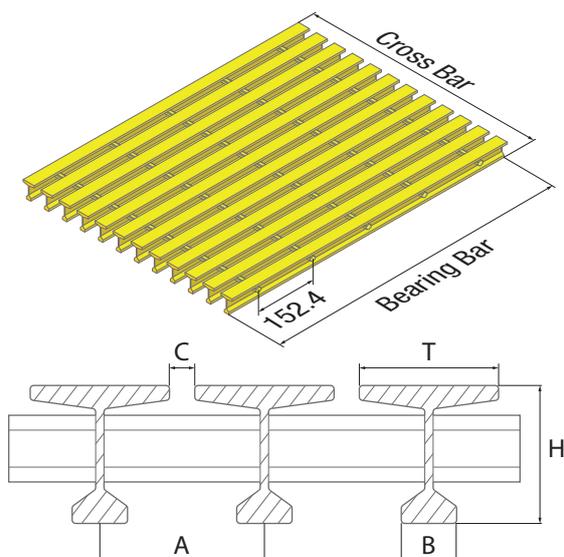


No. Of Bearing Bars Per 1 Meter Width	23
Bearing Bar Width (T/B)	38mm / 15mm
Bearing Bar Center (A)	43.3mm
Cross Bar Center	152.4mm
Opening (C)	5.2mm
Weight	19.6kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Product Code

T-1815 – 38mm Height, 18% Open Area



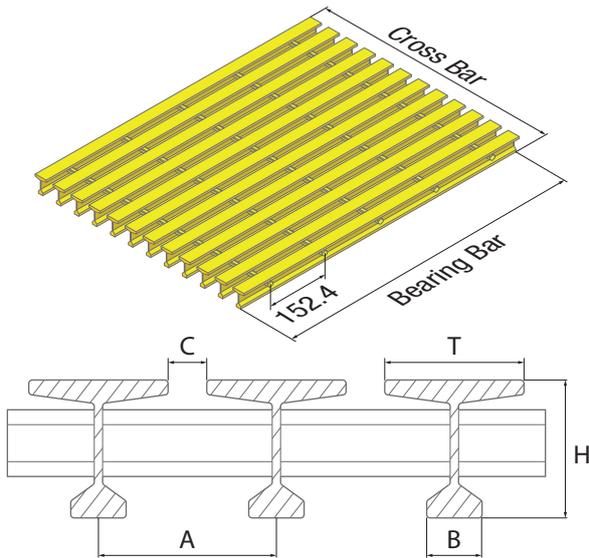
No. Of Bearing Bars Per 1 Meter Width	23
Bearing Bar Width (T/B)	41.3mm / 15mm
Bearing Bar Center (A)	50.8mm
Cross Bar Center	152.4mm
Opening (C)	9.5mm
Weight	19.5kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Sizing Chart FRP Pultruded Grating

Product Code

T-2515 – 38mm Height, 25% Open Area

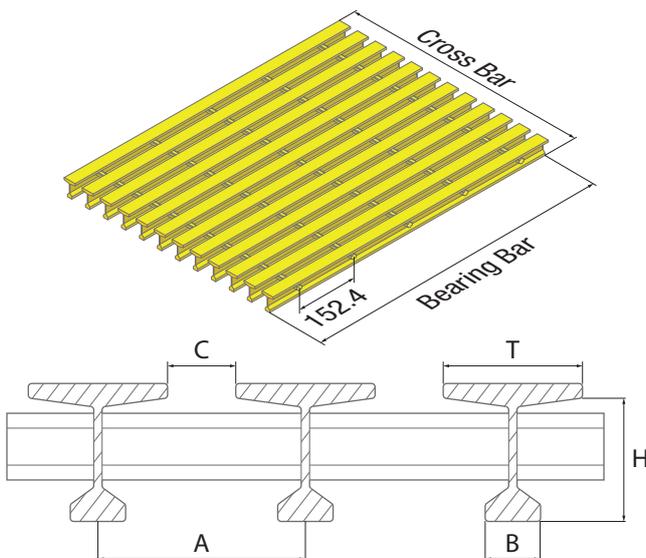


No. Of Bearing Bars Per 1 Meter Width	19
Bearing Bar Width (T/B)	38mm / 15mm
Bearing Bar Center (A)	50.8mm
Cross Bar Center	152.4mm
Opening (C)	12.7mm
Weight	16.7kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Product Code

T-3815 – 38mm Height, 38% Open Area



No. Of Bearing Bars Per 1 Meter Width	16
Bearing Bar Width (T/B)	38mm / 15mm
Bearing Bar Center (A)	61mm
Cross Bar Center	152.4mm
Opening (C)	23mm
Weight	14.2kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

FRP Pultruded Grating Sizing Chart

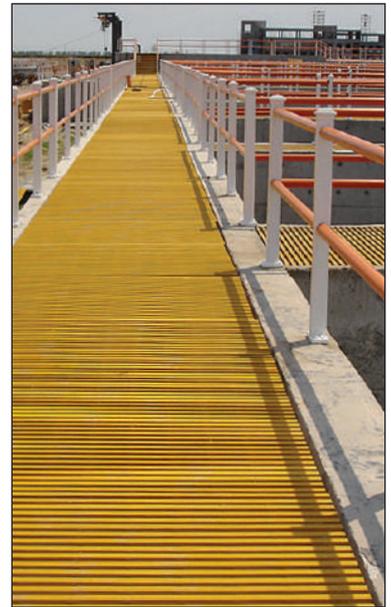
Industrial-Series Grating

Specifically engineered for demanding industrial environments requiring high structural strength and corrosion resistance.

Manufactured with a high glass reinforcement content within the laminate, this grating delivers outstanding durability, superior unidirectional strength, and enhanced stiffness. Its exceptional rigidity makes it particularly suitable for applications involving wider support spans and reduced deflection requirements.

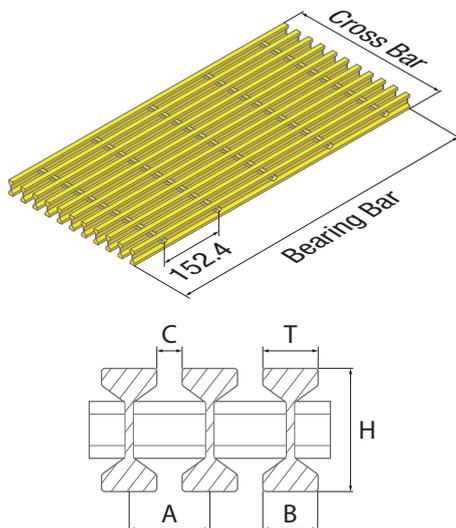
Available in 25mm, 32mm, and 38mm thicknesses in I-Bar configurations with 40%, 50%, and 60% open area options to suit most applications.

A 50mm thick T-Bar configuration is also available with 33% or 50% open area for applications requiring extended spans or minimized deflection.



Product Code

I-4010 – 25mm Height, 40% Open Area 



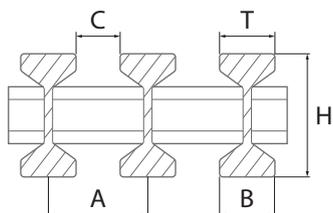
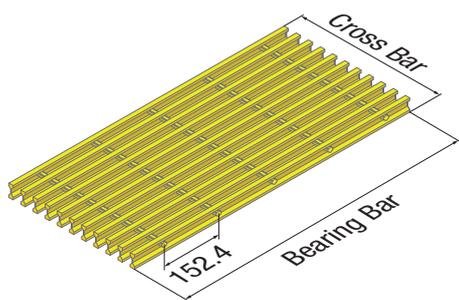
No. Of Bearing Bars Per 1 Meter Width	40
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	25.4mm
Cross Bar Center	152.4mm
Opening (C)	10.16mm
Weight	17.1kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

 ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Sizing Chart FRP Pultruded Grating

Product Code

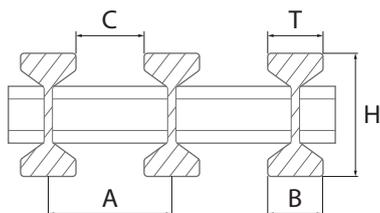
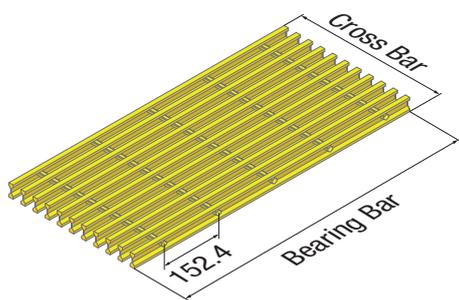
I-5010 – 25mm Height, 50% Open Area



No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	30.48mm
Cross Bar Center	152.4mm
Opening (C)	15.24mm
Weight	14.2kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

Product Code

T-6010 – 25mm Height, 60% Open Area

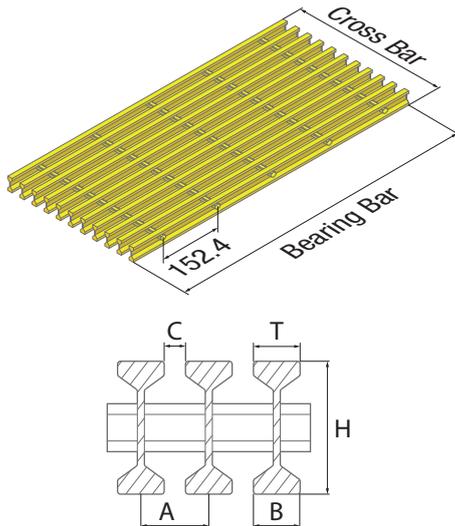


No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	22.86mm
Weight	11.2kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

FRP Pultruded Grating Sizing Chart

Product Code

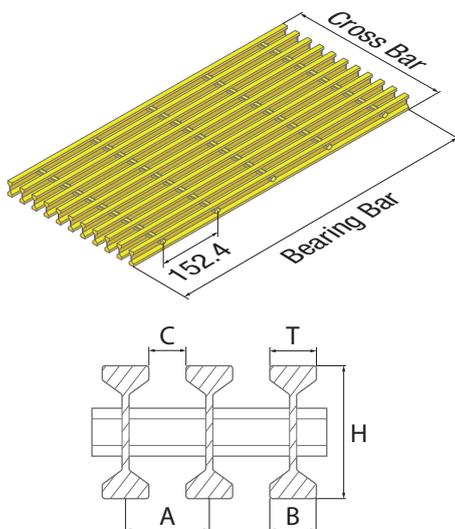
I-40125 – 32mm Height, 40% Open Area



No. Of Bearing Bars Per 1 Meter Width	40
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	25.4mm
Cross Bar Center	152.4mm
Opening (C)	10.16mm
Weight	19.8kg/m ²
Height (H)	32mm
Max Size (WxL)	1524 x 6100mm

Product Code

I-50125 – 32mm Height, 50% Open Area

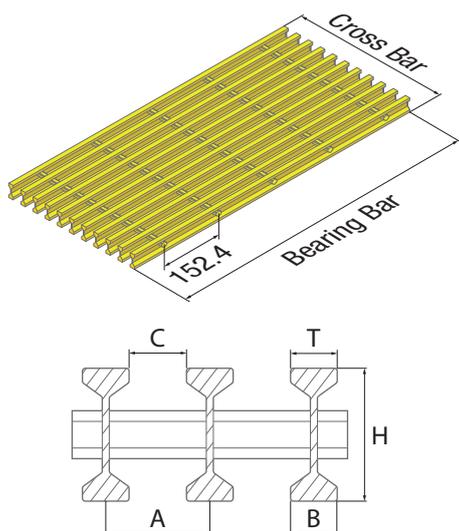


No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	30.48mm
Cross Bar Center	152.4mm
Opening (C)	15mm
Weight	17.4kg/m ²
Height (H)	32mm
Max Size (WxL)	1524 x 6100mm

Sizing Chart FRP Pultruded Grating

Product Code

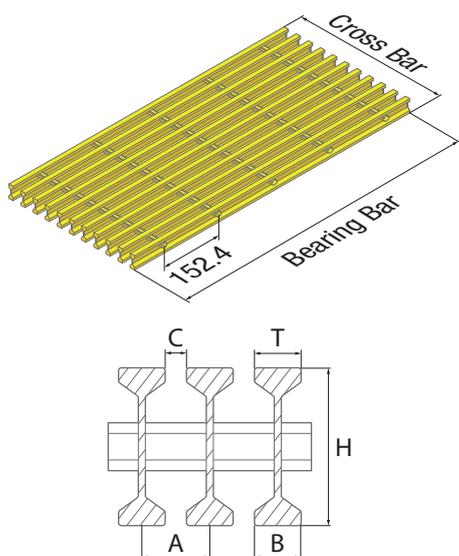
I-60125 – 32mm Height, 60% Open Area



No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	22.86mm
Weight	13.5kg/m ²
Height (H)	32mm
Max Size (WxL)	1524 x 6100mm

Product Code

I-4015 – 38mm Height, 40% Open Area



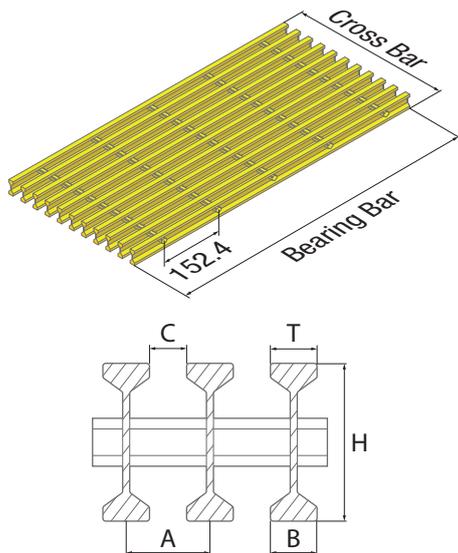
No. Of Bearing Bars Per 1 Meter Width	40
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	25.4mm
Cross Bar Center	152.4mm
Opening (C)	10.16mm
Weight	22kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

 ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

FRP Pultruded Grating Sizing Chart

Product Code

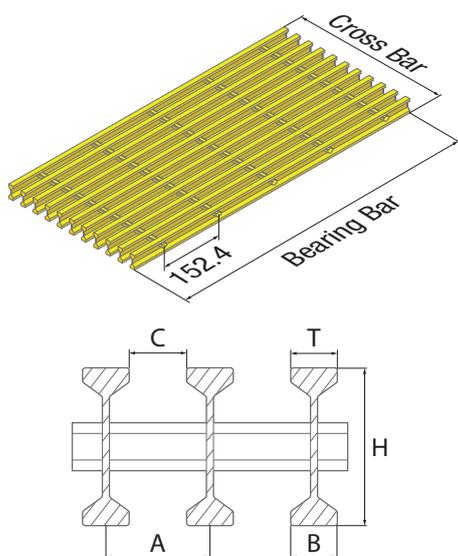
I-5015 – 38mm Height, 50% Open Area



No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	30.48mm
Cross Bar Center	152.4mm
Opening (C)	15.24mm
Weight	19.1kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

Product Code

I-6015 – 38mm Height, 60% Open Area

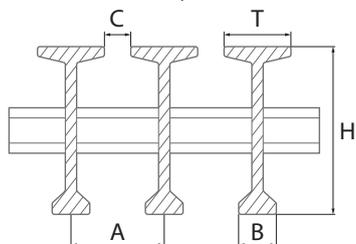
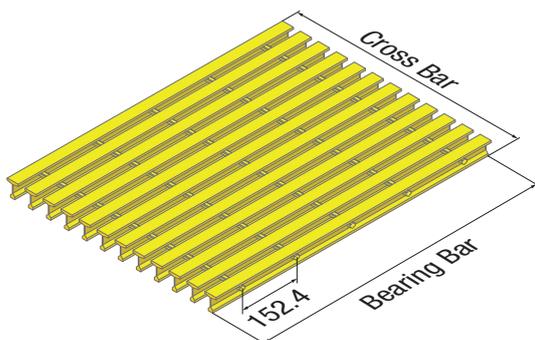


No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	22.86mm
Weight	16.2kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

Sizing Chart FRP Pultruded Grating

Product Code

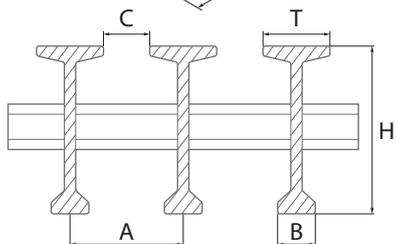
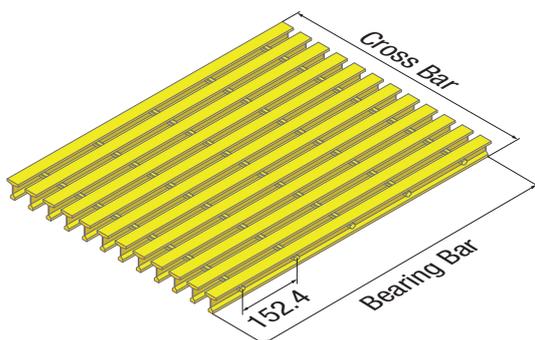
T-3320 – 50mm Height, 33% Open Area



No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	25.4mm / 15mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	12.7mm
Weight	21.7kg/m ²
Height (H)	50mm
Max Size (WxL)	1524 x 6100mm

Product Code

T-5020 – 50mm Height, 50% Open Area



No. Of Bearing Bars Per 1 Meter Width	20
Bearing Bar Width (T/B)	25.4mm / 15mm
Bearing Bar Center (A)	50.8mm
Cross Bar Center	152.4mm
Opening (C)	25.4mm
Weight	15.7kg/m ²
Height (H)	50mm
Max Size (WxL)	1524 x 6100mm

FRP Pultruded Grating Sizing Chart

High Load Capacity-Series Grating

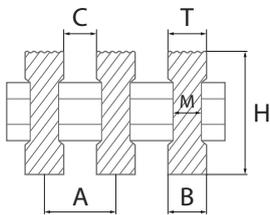
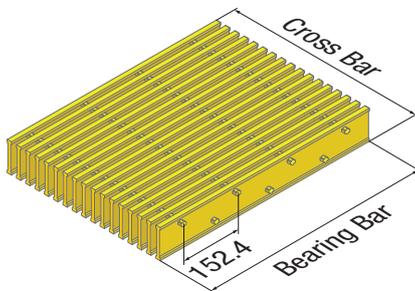
Specifically designed for forklift and tractor trailer loads (up to Standard Truck, formerly H20) or high loads and very long spans which traditional fiberglass pultruded grating is not able to support.

This highly engineered product is often used to replace steel gratings where the spans are typically greater. Comes in five types of thickness: 25mm, 38mm, 50mm, 64mm, and 76mm.



Product Code

HI-3710 – 25mm Height, 37% Open Area 



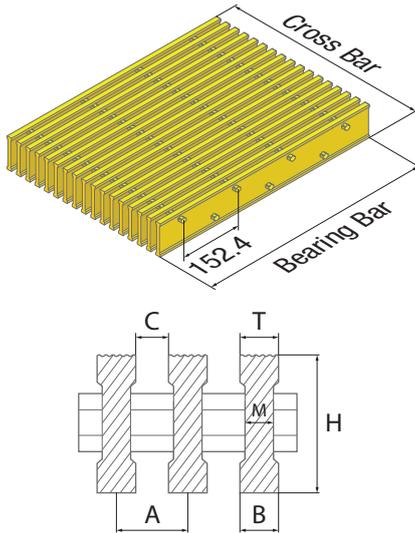
No. Of Bearing Bars Per 1 Meter Width	39
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	25.4mm
Cross Bar Center	152.4mm
Opening (C)	9.5mm
Weight	31.8kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

 ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Sizing Chart FRP Pultruded Grating

Product Code

HI-3715 – 38mm Height, 37% Open Area

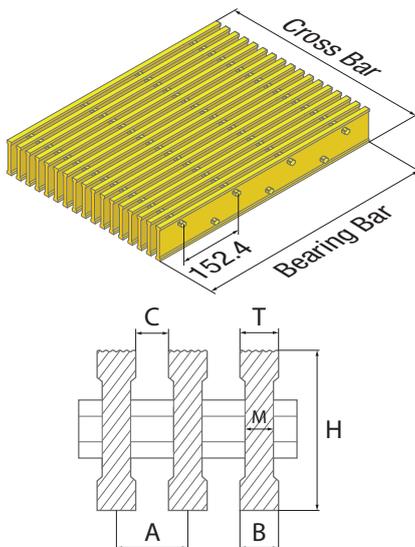


No. Of Bearing Bars Per 1 Meter Width	39
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	25.4mm
Cross Bar Center	152.4mm
Opening (C)	9.5mm
Weight	46.9kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Product Code

HI-3720 – 50mm Height, 37% Open Area



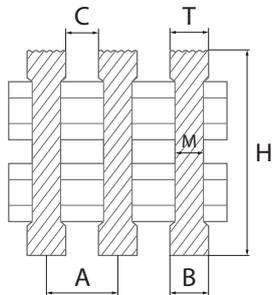
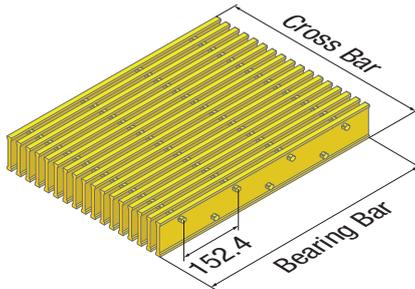
No. Of Bearing Bars Per 1 Meter Width	39
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	25.4mm
Cross Bar Center	152.4mm
Opening (C)	9.5mm
Weight	63.5kg/m ²
Height (H)	50mm
Max Size (WxL)	1524 x 6100mm

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

FRP Pultruded Grating Sizing Chart

Product Code

HI-3725 – 64mm Height, 37% Open Area

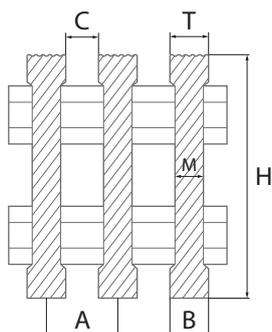
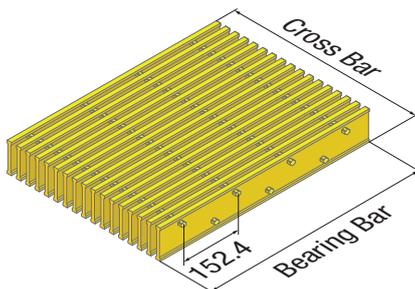


No. Of Bearing Bars Per 1 Meter Width	39
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	25.4mm
Cross Bar Center	152.4mm
Opening (C)	9.5mm
Weight	72.3kg/m ²
Height (H)	64mm
Max Size (WxL)	1524 x 6100mm

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Product Code

HI-3730 – 76mm Height, 37% Open Area



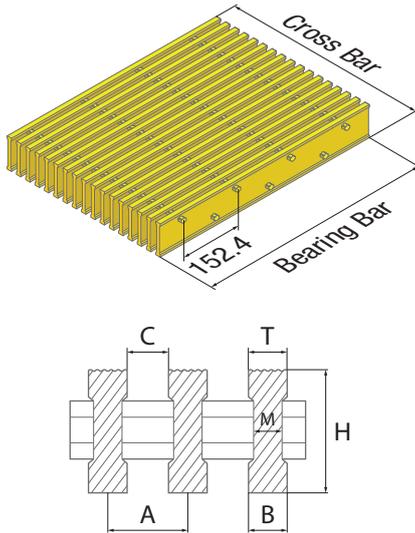
No. Of Bearing Bars Per 1 Meter Width	39
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	25.4mm
Cross Bar Center	152.4mm
Opening (C)	9.5mm
Weight	86.4kg/m ²
Height (H)	76mm
Max Size (WxL)	1524 x 6100mm

ADA (Americans with Disabilities Act of 1990) and DDA (Disability Discrimination Act in UK) compliant.

Sizing Chart FRP Pultruded Grating

Product Code

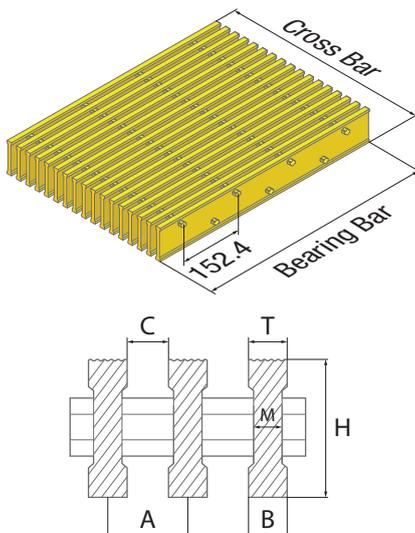
HI-4710 – 25mm Height, 47% Open Area



No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	30.2mm
Cross Bar Center	152.4mm
Opening (C)	14.3mm
Weight	27.6kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

Product Code

HI-4715 – 38mm Height, 47% Open Area

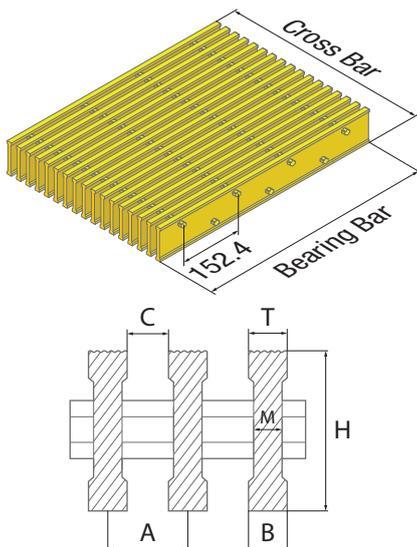


No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	30.2mm
Cross Bar Center	152.4mm
Opening (C)	14.3mm
Weight	40kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

FRP Pultruded Grating Sizing Chart

Product Code

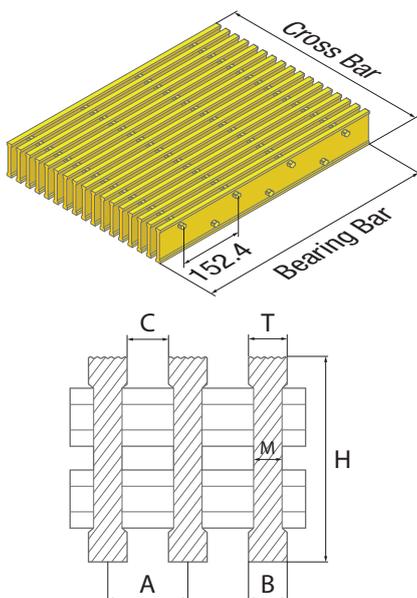
HI-4720 – 50mm Height, 47% Open Area



No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	30.2mm
Cross Bar Center	152.4mm
Opening (C)	14.3mm
Weight	54.5kg/m ²
Height (H)	50mm
Max Size (WxL)	1524 x 6100mm

Product Code

HI-4725 – 64mm Height, 47% Open Area

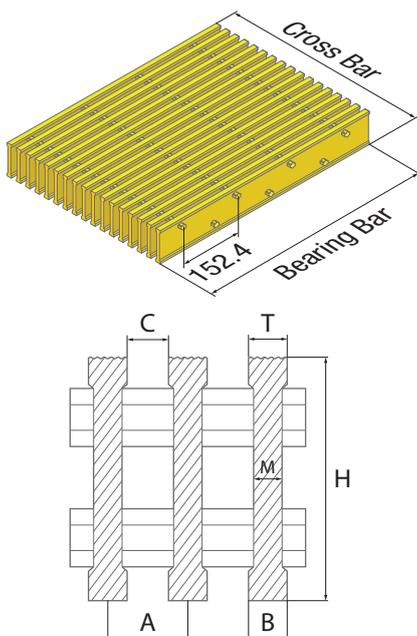


No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	30.2mm
Cross Bar Center	152.4mm
Opening (C)	14.3mm
Weight	61.6kg/m ²
Height (H)	64mm
Max Size (WxL)	1524 x 6100mm

Sizing Chart FRP Pultruded Grating

Product Code

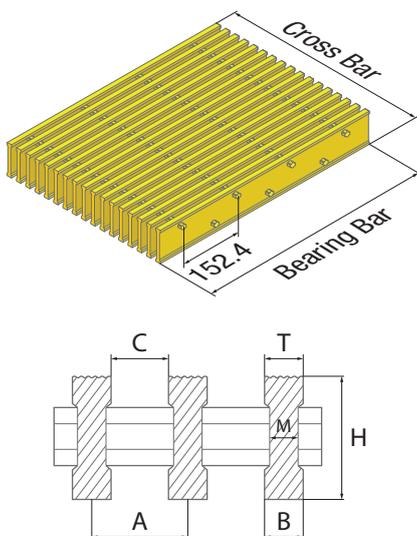
HI-4730 – 76mm Height, 47% Open Area



No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	30.2mm
Cross Bar Center	152.4mm
Opening (C)	14.3mm
Weight	73.6kg/m ²
Height (H)	76mm
Max Size (WxL)	1524 x 6100mm

Product Code

HI-5810 – 25mm Height, 58% Open Area

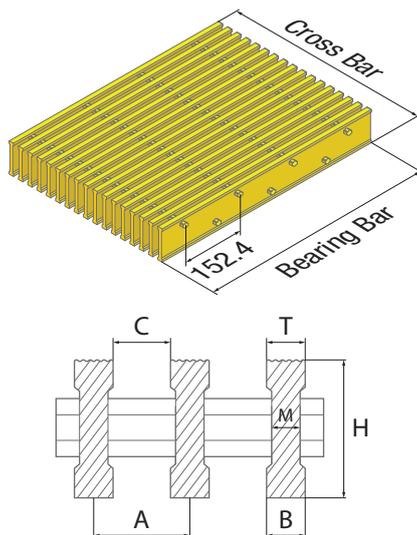


No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	22.2mm
Weight	21kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

FRP Pultruded Grating Sizing Chart

Product Code

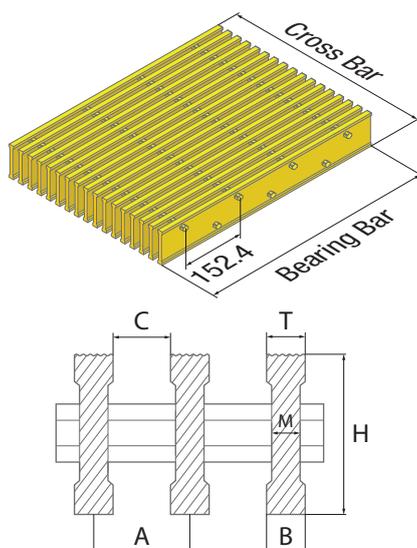
HI-5815 – 38mm Height, 58% Open Area



No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	22.2mm
Weight	46.9kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

Product Code

HI-5820 – 50mm Height, 58% Open Area

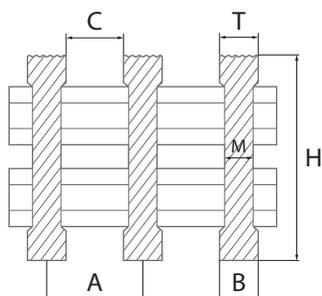
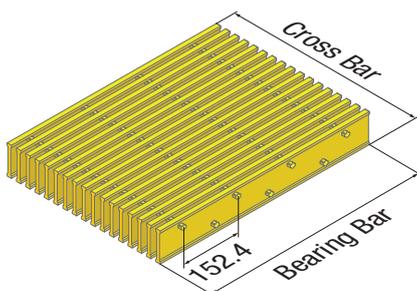


No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	22.2mm
Weight	63.5kg/m ²
Height (H)	50mm
Max Size (WxL)	1524 x 6100mm

Sizing Chart FRP Pultruded Grating

Product Code

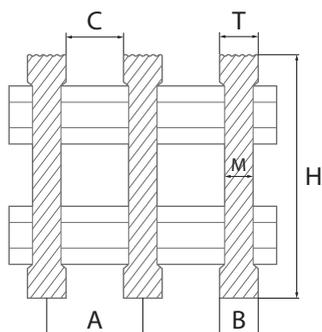
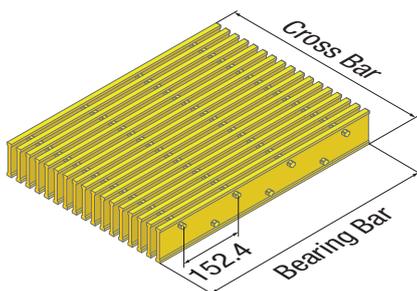
HI-5825 – 64mm Height, 58% Open Area



No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	22.2mm
Weight	48.9kg/m ²
Height (H)	64mm
Max Size (WxL)	1524 x 6100mm

Product Code

HI-5830 – 76mm Height, 58% Open Area

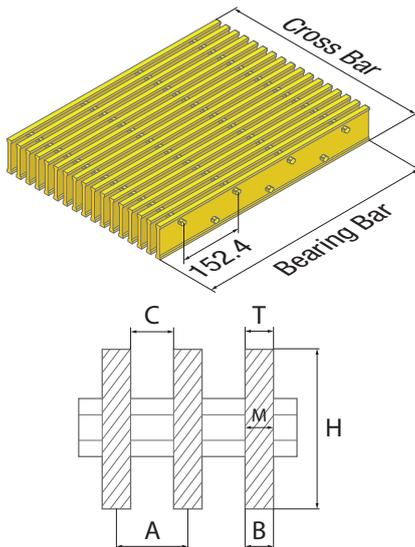


No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	15.9 / 14.4 / 15.9mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	22.2mm
Weight	58.6kg/m ²
Height (H)	76mm
Max Size (WxL)	1524 x 6100mm

FRP Pultruded Grating Sizing Chart

Product Code

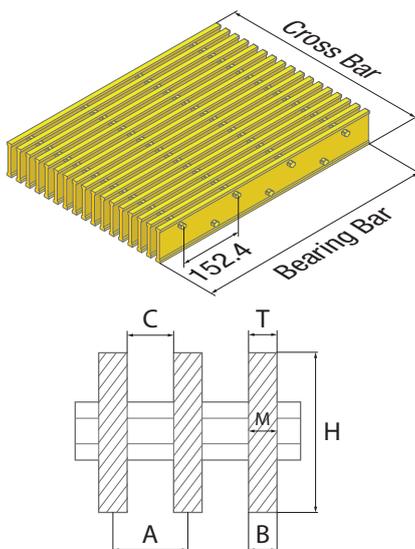
HL-4020 – 50mm Height, 40% Open Area



No. Of Bearing Bars Per 1 Meter Width	40
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	25.4mm
Cross Bar Center	152.4mm
Opening (C)	10.16mm
Weight	70.4kg/m ²
Height (H)	50mm
Max Size (WxL)	1524 x 6100mm

Product Code

HL-5020 – 50mm Height, 50% Open Area

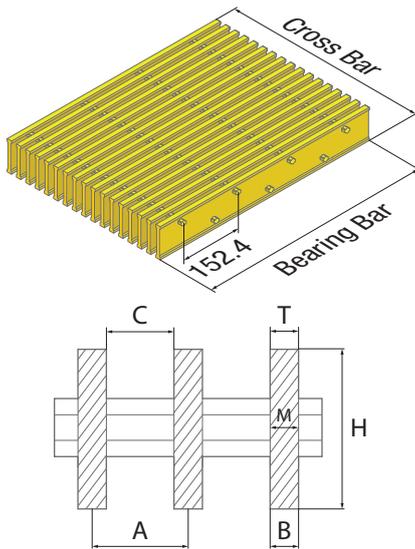


No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	30.48mm
Cross Bar Center	152.4mm
Opening (C)	15.24mm
Weight	52.2kg/m ²
Height (H)	50mm
Max Size (WxL)	1524 x 6100mm

Sizing Chart FRP Pultruded Grating

Product Code

HL-6020 – 50mm Height, 60% Open Area



No. Of Bearing Bars Per 1 Meter Width	26
Bearing Bar Width (T/B)	15.24mm
Bearing Bar Center (A)	38.1mm
Cross Bar Center	152.4mm
Opening (C)	22.86mm
Weight	43.5kg/m ²
Height (H)	50mm
Max Size (WxL)	1524 x 6100mm

Vehicle Load span Chart

High Load Capacity-Series Grating

Design Load		 AASHTO Standard Truck 14,285Kg Dual Wheels	 Automobile Traffic 2,270Kg Vehicle 681Kg Load 55% Drive Axle Load	 5 Ton Capacity Forklift 6,538Kg Vehicle 11,075Kg Total Load 85% Drive Axle Load	 3 Ton Capacity Forklift 4,449Kg Vehicle 7,173Kg Total Load 85% Drive Axle Load	 1 Ton Capacity Forklift 1,907Kg Vehicle 2,815Kg Total Load 85% Drive Axle Load
Wheel Load (Kg) (1/2 Axle Load + 30% Impact)		9,443	1,008	6,120	3,963	1,555
Load Distribution	Parallel To Axle	508 + 50mm	228 + 50mm	279 + 50mm	178 + 50mm	102 + 50mm
	Perpendicular To Axle	508mm	228mm	305mm	178mm	102mm
Allow Span	HI-3710	406mm	431mm	305mm	279mm	355mm
	HI-3715	584mm	660mm	508mm	508mm	508mm
	HI-3720	736mm	813mm	660mm	736mm	812mm
	HI-3725	863mm	1067mm	812mm	838mm	991mm
	HI-3730	1041mm	1295mm	990mm	1016mm	1193mm
Load Distribution	Parallel To Axle	508 + 60mm	228 + 60mm	279 + 60mm	178 + 60mm	102 + 60mm
	Perpendicular To Axle	508mm	228mm	279mm	178mm	102mm
Allow Span	HI-4710	381mm	406mm	279mm	254mm	330mm
	HI-4715	558mm	635mm	482mm	482mm	584mm
	HI-4720	685mm	889mm	635mm	635mm	812mm
	HI-4725	838mm	1016mm	787mm	787mm	939mm
	HI-4730	990mm	1244mm	939mm	965mm	1168mm
Load Distribution	Parallel To Axle	508 + 76mm	228 + 76mm	279 + 76mm	178 + 76mm	102 + 76mm
	Perpendicular To Axle	508mm	228mm	279mm	178mm	102mm
Allow Span	HI-5810	406mm	431mm	305mm	279mm	355mm
	HI-5815	584mm	660mm	508mm	508mm	508mm
	HI-5820	736mm	813mm	660mm	736mm	812mm
	HI-5825	863mm	1067mm	812mm	838mm	991mm
	HI-5830	1041mm	1295mm	990mm	1016mm	1193mm

Notes:

- (1) Load is carried by the grating load bars immediately under wheel + two additional load bars, one on each side of wheel.
- (2) Allowable span is based on a 6.4mm deflection and a factor of safety of 3.0. Other criteria may be required by certain construction codes. Check code requirements to determine design criteria.
- (3) Allowable span is strongly dependent on wheel width and vehicle weight/load capacity.
- (4) Load based on the AASHTO standard truck load as defined in AASHTO LRFD bridge design specifications, 2nd Ed. This doesn't imply that the allowable span meet the deflection requirements of this specifications.

Sizing Chart FRP Pultruded Grating

SI-Series Grating

Widely specified for cooling tower walkways due to its high open-area design, pultruded SI-Series grating promotes superior airflow and drainage.

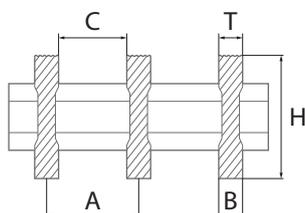
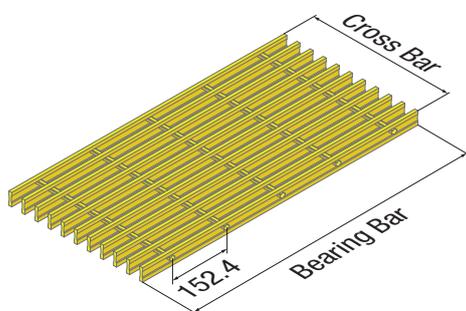
The bonded rod crossbar construction provides structural stability, making it well-suited for pedestrian traffic applications. Open areas of 73% and 83% allow for excellent ventilation performance.

With a profile closely resembling traditional metal grating, SI-Series pultruded grating is often selected for projects requiring a visual match to steel or aluminum systems while offering the benefits of FRP.



Product Code

SI-7310 – 25mm Height, 73% Open Area

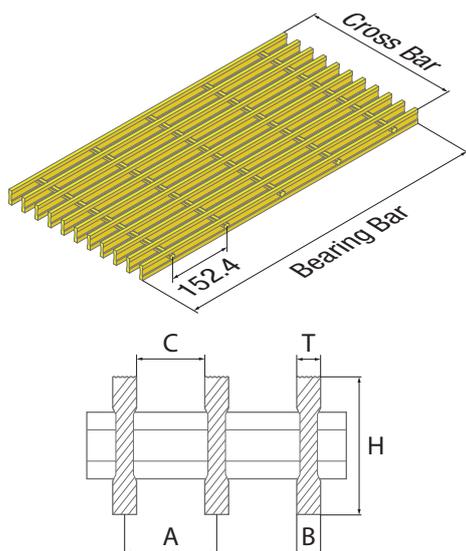


No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	7.9mm
Bearing Bar Center (A)	30.2mm
Cross Bar Center	152.4mm
Opening (C)	22.2mm
Weight	13.2kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

FRP Pultruded Grating Sizing Chart

Product Code

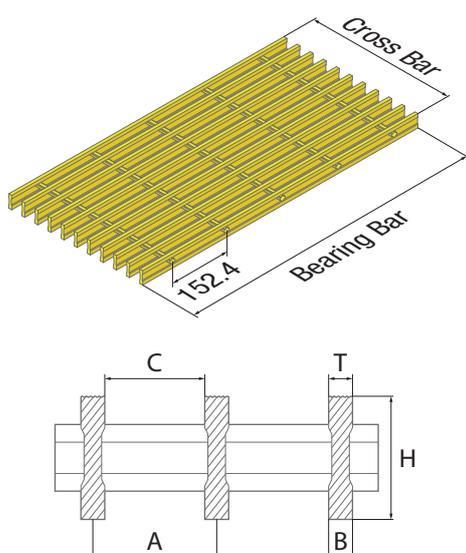
SI-7315 – 38mm Height, 73% Open Area



No. Of Bearing Bars Per 1 Meter Width	33
Bearing Bar Width (T/B)	7.9mm
Bearing Bar Center (A)	30.2mm
Cross Bar Center	152.4mm
Opening (C)	22.2mm
Weight	18.6kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

Product Code

SI-8310 – 25mm Height, 83% Open Area

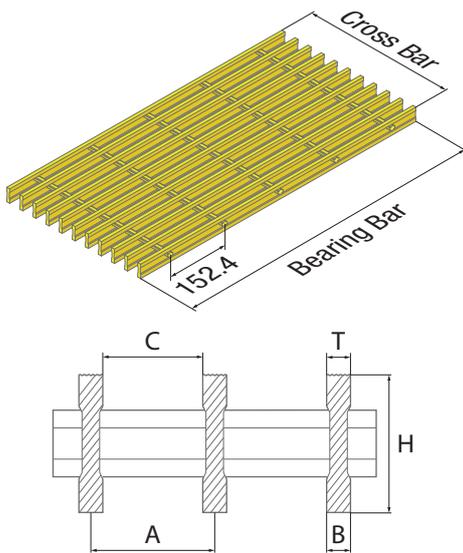


No. Of Bearing Bars Per 1 Meter Width	21
Bearing Bar Width (T/B)	7.9mm
Bearing Bar Center (A)	47.6mm
Cross Bar Center	152.4mm
Opening (C)	39.6mm
Weight	8.5kg/m ²
Height (H)	25mm
Max Size (WxL)	1524 x 6100mm

Sizing Chart FRP Pultruded Grating

Product Code

SI-8315 – 38mm Height, 83% Open Area



No. Of Bearing Bars Per 1 Meter Width	21
Bearing Bar Width (T/B)	7.9mm
Bearing Bar Center (A)	47.6mm
Cross Bar Center	152.4mm
Opening (C)	39.6mm
Weight	12kg/m ²
Height (H)	38mm
Max Size (WxL)	1524 x 6100mm

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