

Dudhi DynaGrate & DynaDrain

Glass Fibre Drain Channel & Moulded Gratings

MADE STRONG, MADE TO LEAD



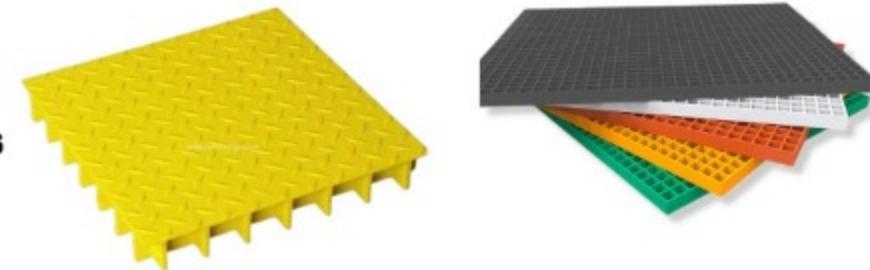
कीमत नहीं, गुणवत्ता देखें।

DynaGrate STA : Moulded Gratings

DynaGrate STA :Moulded gratings are widely used in various applications due to their lightweight, corrosion-resistant, and durable properties. These gratings are manufactured by combining resin with fiberglass reinforcement through a moulding process, resulting in a strong and versatile material.

Application Area:

- Industrial Platforms and Walkways
- Oil and Gas Industry
- Marine and Waterfront Structures
- Chemical Processing Plants
- Water and Wastewater Treatment
- Pulp and Paper Industry
- Power Generation Plants
- Mining and Mineral Processing
- Transportation Infrastructure
- Commercial and Recreational Facilities
- Food and Beverage Industry
- Safety and Access Applications



Grating Thickness	Mesh/Rib Description	Panel Sizes Available (MM)	Weight (kg/m2)	% Open Area	Loading Capacity (UDL) (kg/SQM)
1"(25 mm)	Square Mesh(38 x 38 mm) RibThickness-(5-7 MM)	1220X3660	12.2	68%	450
1-1/4"(30 mm)	Square Mesh(38 x 38 mm) RibThickness-(5-7 MM)	1220X3660	15.62	68%	500
1-1/2" 40 mm)	Square Mesh(38 x 38 mm) RibThickness-(5-7 MM)	1220X3660	18.55	68%	750
2" (50 mm)	Square Mesh(50 x 50 mm) Rib Thickness-(6-8 MM)	1220X3660	22	71%	1250

Uses of DynaGrate : Moulded Gratings



Trench Grating



Drain Grates



Walkway Grating



Floor Grating



Platform



Deck Grating

Width Of Moulded Gratings Block Cutting (25 MM,30 MM,40 MM and 50 MM Height)

| Blocks |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 43 | 195 | 347 | 499 | 651 | 803 | 955 | 1107 |
| 81 | 233 | 385 | 537 | 689 | 841 | 993 | 1145 |
| 119 | 271 | 423 | 575 | 727 | 879 | 1031 | 1183 |
| 157 | 309 | 461 | 613 | 765 | 917 | 1069 | 1222 |

Length Of Moulded Gratings Block Cutting (25 ,30,40 and 50 MM Height)

45	501	957	1413	1869	2325	2781	3237
83	539	995	1451	1907	2363	2819	3275
121	577	1033	1489	1945	2401	2857	3313
159	615	1071	1527	1983	2439	2895	3351
197	653	1109	1565	2021	2477	2933	3389
235	691	1147	1603	2059	2515	2971	3427
273	729	1185	1641	2097	2553	3009	3465
311	767	1223	1679	2135	2591	3047	3503
349	805	1261	1717	2173	2629	3085	3541
387	843	1299	1755	2211	2667	3123	3579
425	881	1337	1793	2249	2705	3161	3617
463	919	1375	1831	2287	2743	3199	3655

Mild Steel Grating

- ✓ **Material Composition:** Made of steel, which can corrode and rust over time, especially in corrosive environments.
- ✓ **Corrosion Resistance:** Susceptible to corrosion and rust, especially in environments with moisture or exposure to chemicals.
- ✓ **Weight:** Heavier than DUDHI DYNAGRATE STA FRP, requiring more effort and equipment for handling and installation.
- ✓ **Strength-to-Weight Ratio:** Strong, but its weight can limit its practical load-bearing capacity compared to DUDHI DYNAGRATE STA FRP.
- ✓ **Electrical Conductivity:** Conductive, posing a risk in electrical and electronic environments.
- ✓ **Maintenance:** Needs regular maintenance to prevent rust and corrosion, involving painting, coatings, and potential replacements.
- ✓ **Fire Resistance:** Vulnerable to fire and may require additional fireproofing measures.
- ✓ **Installation:** Heavier and requires more labour and equipment for installation.
- ✓ **Aesthetic Options:** Generally lacks aesthetic customization options.
- ✓ **Cost:** Lower initial cost but higher maintenance and replacement costs due to corrosion and rust.
- ✓ **Environmental Impact:** Resource-intensive to produce and can contribute to environmental degradation if not properly maintained.

VS

DynaGrate STA

 dudhi
a trusted name

- ✓ **Material Composition:** Manufactured with Special Grade of fiberglass reinforced with plastic resin. Offers excellent corrosion resistance, high strength-to-weight ratio, and Non-conductivity.
- ✓ **Corrosion Resistance:** Highly resistant to corrosion from chemicals, moisture, and environmental elements. Suitable for harsh and corrosive environments.
- ✓ **Weight:** Lightweight, making transportation, handling, and installation easier. Reduces the need for heavy equipment during installation.
- ✓ **Strength-to-Weight Ratio:** Offers a high strength-to-weight ratio, allowing it to handle heavy loads while remaining lightweight.
- ✓ **Electrical Conductivity:** Non-conductive and offers excellent electrical insulation properties, making it safe for use in electrical environments.
- ✓ **Maintenance:** Requires minimal maintenance due to its resistance to corrosion and chemicals.
- ✓ **Fire Resistance:** Dudhi DynaGrate STA FRP gratings are manufactured with fire-retardant additives, enhancing its fire resistance.
- ✓ **Installation:** Lightweight and can be easily cut and installed with basic tools. Suitable for areas where heavy equipment is impractical.
- ✓ **Aesthetic Options:** Available in various colors and surface patterns for aesthetic integration.
- ✓ **Cost:** Initial cost might be higher, but lower maintenance and longer lifespan can make it cost-effective over time.
- ✓ **Environmental Impact:** More environmentally friendly due to recyclability and lower resource consumption during production.

DynaGrate STA : Moulded Gratings

PHYSICAL PROPERTIES:

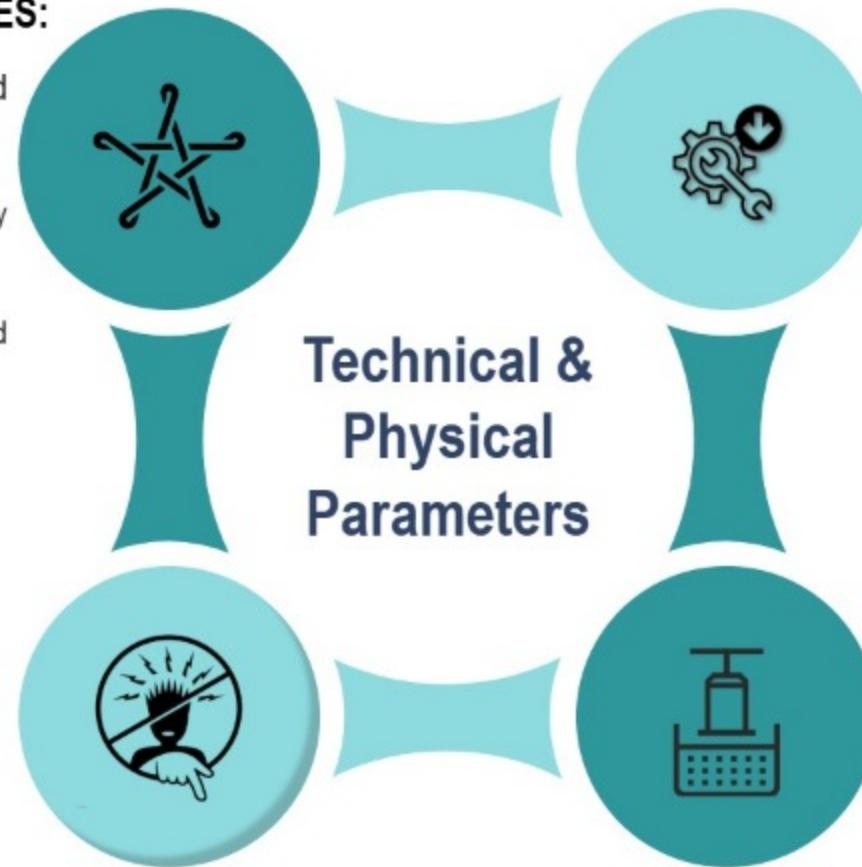
Density: Varies depending on the resin matrix and reinforcement, typically around 1.6 - 2.0 g/cm³.

Thermal Conductivity: Low thermal conductivity compared to metals.

Expansion Coefficient: Minimal expansion and contraction with temperature changes.

ELECTRICAL PROPERTIES:

Non-Conductive: FRP gratings are non-conductive and offer excellent electrical insulation properties.



MECHANICAL PROPERTIES:

Tensile Strength: Typically in the range of 20,000 - 30,000 psi (138 - 207 MPa).

Flexural Strength: Around 25,000 - 40,000 psi (172 - 276 MPa).

Compressive Strength: Approximately 20,000 - 30,000 psi (138 - 207 MPa).

Impact Strength: High impact resistance due to the composite nature of the material.

LOAD-BEARING CAPACITY:

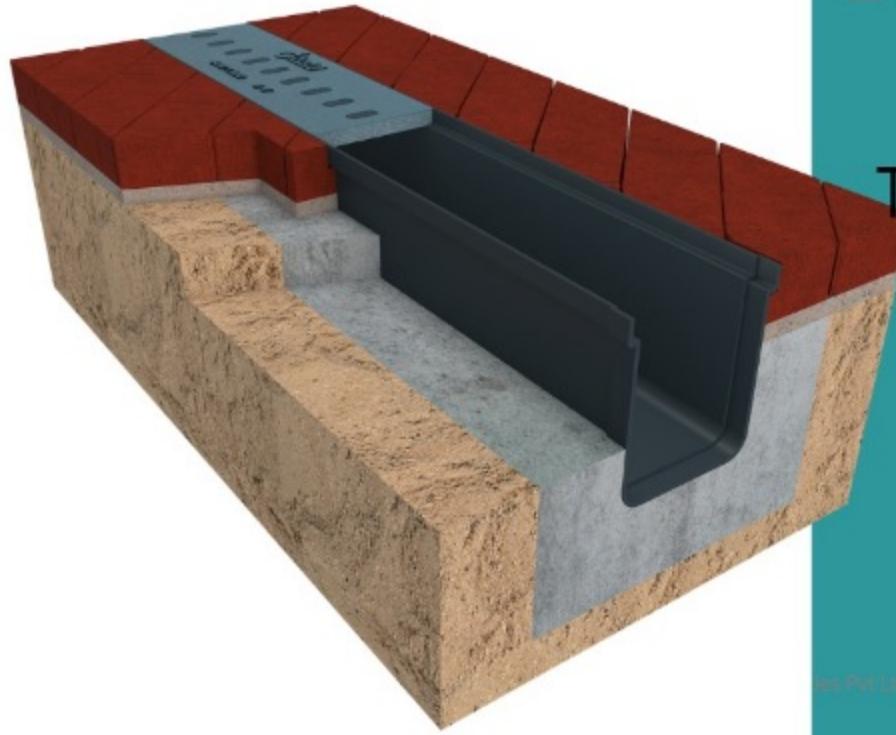
Load Ratings: Load-bearing capacities vary based on the mesh size, panel thickness, and design specifications. Often specified as uniform and concentrated load limits.

Panel Sizes and Mesh Configurations: Available in various panel sizes, mesh configurations and thicknesses. Customizable to suit specific project requirements.



Dudhi DynaDrain

Glass Fibre Drain Channel



Technical Datasheet

MADE STRONG
MADE TO LEAD

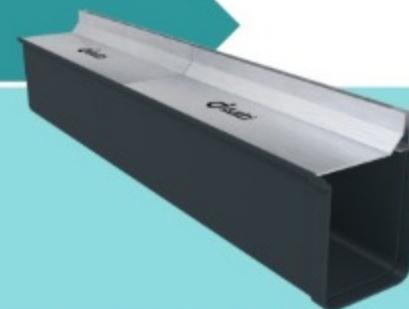
Application Area:

Dudhi DynaDrain STA Glass Fiber Reinforced Polymer (GFRP) drainage channels are used to manage water flow, prevent water accumulation, and ensure effective drainage in various applications.

- **Industrial Facilities:** Chemical spill-prone areas in factories.
- **Laboratories:** Handling hazardous substances safely.
- **Chemical Processing Plants:** Resisting corrosive chemicals.
- **Battery Manufacturing Units:** Dealing with acids and alkalis.
- **Metal Galvanization Plants:** Enduring harsh chemicals.
- **Food and Beverage Industry:** Withstanding cleaning agents.
- **Wastewater Treatment Plants:** Managing chemical-laden water.
- **Chemical Storage Areas:** Handling potential spills.
- **Electroplating Facilities:** Resisting corrosive solutions.
- **Pharmaceutical Manufacturing:** Maintaining hygiene standards.
- **Mining Operations:** Enduring acidic or alkaline conditions.
- **Chemical Research Institutes:** Handling accidental spills.
- **Petrochemical Plants:** Safely processing chemicals.
- **Printing and Textile Industry:** Resisting corrosive agents.
- **Effluent Treatment Plants :** Handling Effluents without being degraded.
- **Water Treatment Facilities:** Managing chemical treatment stages.

Available Sizes: Dudhi DynaDrain Glass Fiber Reinforced Polymer (GFRP) drainage channels are available in a range of sizes, shapes, and configurations to suit various applications and drainage needs. Here are some aspects that are typically available for GFRP drainage channels:

- Width (O): 100 mm to 300mm, ➤ Depth(H): 100 to 350 mm,
- Length: 1000mm, ➤ Loading Capacity 2.5 ton. To 10 Ton.



Unmatched Chemical Resistance : Withstands Heat, Cold, Corrosion, Acids, and Alkalies for Lasting Durability.

Effortless Installation: Smooth Surface Minimizes Trenching, Saving Time and Costs.

End Caps and Accessories: Provide End-caps, Connectors, and Other Accessories that Allow you to customize and configure the drainage system to your specific needs.

Concealed Elegance: Seamless linear joints with FRP slot grate cover blend function and aesthetics.

Sustainability Focus: Eco-friendly materials ensure environmental harmony.

Minimal Upkeep: Low-maintenance design reduces cleaning needs and resource usage.

Comparision:

Description	RCC	Polymer Concrete	Dudhi DynaDrain STA
Strength	Offers high compressive and tensile strength, but it is brittle and has the low flexural capability.	Polymer Concrete also has high compressive strength, but its tensile and flexural strength is less when compared to RCC. GFRP	Moderate compressive strength but excellent tensile and flexural strength, making it suitable for applications requiring high strength and durability.
Weight	RCC is a heavy material, which makes it cumbersome to transport and install.	Polymer Concrete is relatively lighter compared to RCC, with approximately 50% less weight.	DynaDrain STA, however, is the lightest of the three, with its weight being only 25% compared to RCC.
Durability	RCC has excellent durability. However, it is prone to cracking and spalling due to thermal stresses and freeze-thaw cycles.	Polymer concrete also has excellent durability but is less resistant to chemicals and thermal shocks.	DynaDrain STA is highly durable and corrosion-resistant, making it an ideal choice for harsh environments.
Installation	RCC requires heavy machinery and skilled labor for the installation, making it a time-consuming process.	Polymer concrete has a fast setting time but requires specialized equipment for installation.	DynaDrain STA is lightweight and easy to handle, enabling quick and easy installation.
Maintenance	RCC requires periodic maintenance due to cracking, spalling, and corrosion of steel reinforcements.	Polymer concrete requires minimal maintenance, but surface corrosion can occur over time.	DynaDrain STA requires the least maintenance, as it is resistant to corrosion and damage from harsh environmental conditions.

Dudhi DynaDrain STA Covers:



Dudhi DynaDrain STA Channel are available in variety of cover choices as per buyer's and application requirements. The drain channels are customised according to right fitment of Covers selected by the buyer.

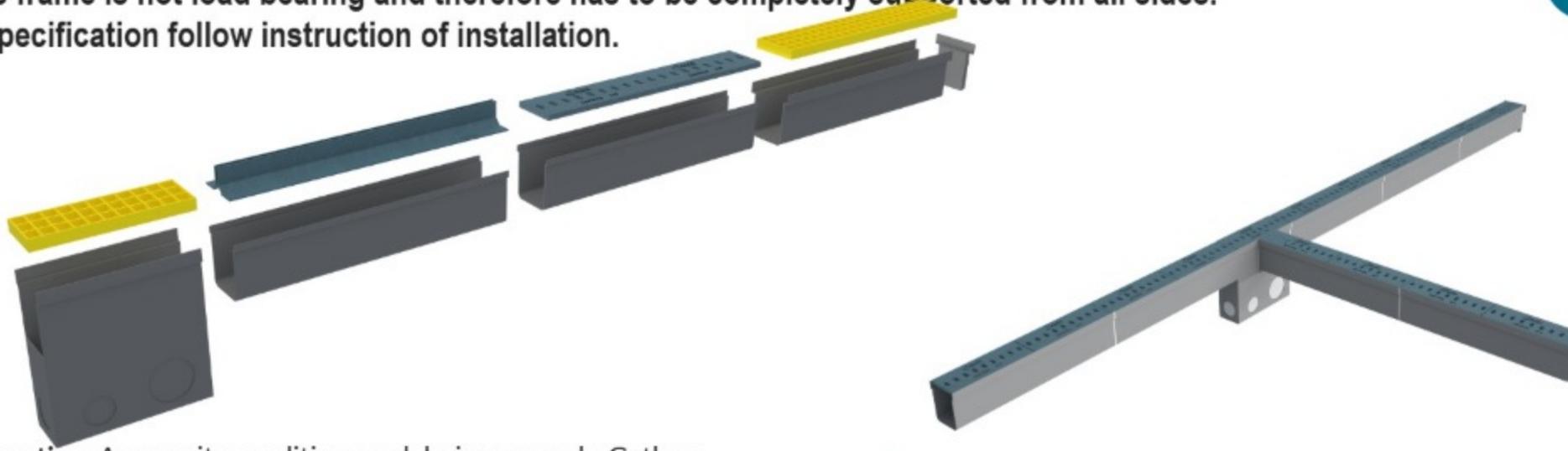
	<p>Slide Slot Covers : Length : 1000mm Width : 120mm-330mm or Customized Height : 40mm, 60mm, 80mm <i>Internal Size Of The Gap : 12mm or Customized*</i></p>
	<p>Moulded Grating Covers : Square Mesh(38 x 38 mm) RibThickness-(5-7 MM) Height : 25 MM for 2.5 T Load Square Mesh(38 x 38 mm)RibThickness-(5-7 MM) Height : 30 MM for 5.0 T Load Square Mesh(38 x 38 mm) RibThickness-(5-7 MM) Height : 40 MM for 10.0 T Load</p>
	<p>Gully Grating : Length 500 MM Width : 120 to 330 MM, Height : 20, 25 & 30 MM</p>

The gap-type linear drainage system has good drainage capacity. It is very suitable for installation in places with high requirements for paving landscapes. The system can be used with almost all ground auxiliary materials and has good bearing capacity. The gap-type drainage system is composed of a steel gap-type cover plate, resin concrete drain ditch base, falling water well, inspection-well system accessories, and another modular integrated drainage system.



Installation Guidelines for Dudhi DynaDrain STA Drain Channel:

Please note frame is not load bearing and therefore has to be completely supported from all sides.
For more specification follow instruction of installation.



- ✓ **Preparation:** Assess site conditions and drainage needs. Gather necessary tools and equipment.
- ✓ **Site Layout:** Determine optimal placement and slope. Mark installation positions accurately.
- ✓ **Trench Excavation:** Dig a trench to accommodate the drain channel. Ensure proper width and depth.
- ✓ **Substrate Preparation:** Compact trench bottom evenly. Create a stable foundation if needed.
- ✓ **Channel Placement:** Carefully position the drain channel. Align with marked slope and location.
- ✓ **Secure Connections:** Attach sections securely using proper connectors. Seal joints with approved sealants.
- ✓ **Grating Fixing:** Place and secure the grating or cover. Prevent debris entry while allowing water flow.
- ✓ **Backfilling:** Fill trench with backfill material. Compact material in layers to avoid settling.
- ✓ **Surface Leveling:** Ensure a flush surface around the drain channel.
- ✓ **Water Flow Test:** Test drainage by pouring water and checking flow.
- ✓ **Maintenance:** Regularly inspect and clean the drain channel.
- ✓ **Safety First:** Adhere to safety protocols, especially in deep trenches. Wear appropriate personal protective equipment (PPE).

All Product Catalogs



Products Range of
Dudhi Industries



Gypsum
Products



SMC
Products



Access
Covers



Drain Channel
& Grating



GFRP Rebar



Cable Tray
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Innovative
Planters

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