ZEALLGRATE

FRP GRATING MASTER CATALOG

Molded Grating • Pultruded Grating • Grating Covers
Handrail Systems • Ladder & Stair Systems • Structural Profiles
Clips & Accessories • Fiberglass Fabric • Fiberglass Mesh Tape

ISO 9001:2015 Certified | DNV / ABS Marine Options | SGS / Intertek Inspection

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1. Company & Product Overview

ZeAllgrate is the registered product brand of Nantong ZeAll New Materials Co., Ltd., a manufacturer and supplier of quality fiberglass reinforced plastic (FRP) structural products and engineered solutions. Our product systems are engineered for corrosion resistance, safety, strength and long service life in the most demanding industrial, marine and architectural environments.

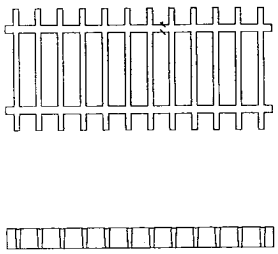
FRP (fiberglass reinforced plastic) products are lightweight and low maintenance and offer corrosion resistance, impact resistance and high strength, as well as significant ergonomic and safety benefits. Every product line is produced in-house at our Nantong facility under an ISO 9001:2015 certified quality management system, allowing strict control of resin formulation, glass content, dimensional tolerance and surface finish.

We manufacture with multiple resin formulations (polyester, isophthalic, vinyl ester and fire-retardant grades) and over 20 grating configurations which afford optimal product utilization and easy installation. Meniscus or grit top surfaces are available for superior slip resistance.

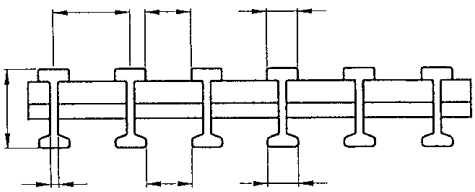
2. Complete FRP Grating Product System

ZeAllgrate manufactures a complete fiberglass reinforced plastic (FRP) product system. The following product lines and series are available with matching accessories.

Product Line	Series / Type	Typical Application
Molded Grating	Square / rectangular mesh, HLC	Platforms, walkways, trench covers
Pultruded Grating	I-bar / T-bar profiles	Heavy industrial floors, long spans
Grating Covers	Solid & vented FRP covers	Trench, pit and channel covers
Handrail Systems	FRP railing & guardrail	Walkway edges, stairs, mezzanines
Ladder & Stair Systems	FRP ladders, stairs, treads	Access, egress, maintenance
Structural Profiles	I-beam, channel, angle, tube	Frames, supports, structures
Clips & Accessories	Grating clips, fasteners	Secure grating installation
Fiberglass Fabric	Woven roving fabric	Laminates, repairs, lining
Fiberglass Mesh Tape	Alkali-resistant mesh	Crack control, reinforcement



Molded Grating - rectangular mesh construction

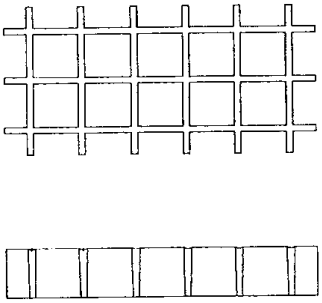


Pultruded Grating - I-bar profile construction

3. Materials & Resin Systems

Resin selection determines chemical resistance, temperature rating and long-term durability. ZeAllgrate manufactures with a range of thermosetting resin systems matched to service environment, temperature and fire performance requirements.

Resin System	Temp Rating	Key Properties	Typical Use
Polyester (ORTHO)	140°F / 60°C	General purpose, economy	Dry areas, mild exposure
Isophthalic (ISO)	150°F / 65°C	Better corrosion resistance	Wet/dry industrial floors
Vinyl Ester (VE)	180°F / 82°C	Superior chemical resistance	Chemical plants, bleach areas
Vinyl Ester FR (VEFR)	180°F / 82°C	Chemical + fire retardant	Hazardous process areas
Phenolic	350°F / 177°C	High temp, low smoke	Offshore, marine, tunnel
XFR / Flame Retardant	180°F / 82°C	ASTM E-84 Class 1	Plenums, fire-rated areas

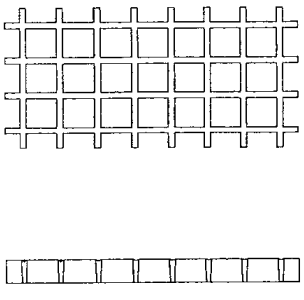


Molded Grating - high-load / HLC construction

4. Surface & Anti-Slip Options

ZeAllgrate grating is available with a range of surface treatments to meet slip-resistance requirements from light pedestrian traffic to the most aggressive wet and oily process environments.

Surface	Description	Slip Resistance	Best For
Smooth	Flat bar top, easy clean	Standard	General platforms
Grit Top	Aluminum oxide grit embedded	High (R10-R12)	Wet, oily, process areas
Coarse Grit	Heavy grit, aggressive	Very high (R13)	Marine, offshore
Concave (Meniscus)	Recessed bar, chemical hold	Standard+	Chemical spills

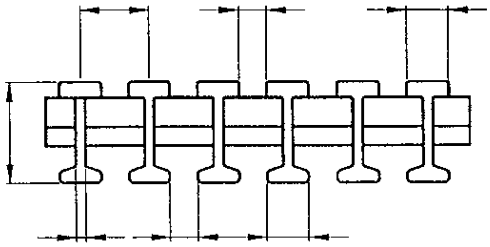


Molded Grating panel - grit top available

5. Load Performance

ZeAllgrate load data is generated from physical testing in accordance with ANSI standards for FRP composite grating and stair treads. Safety factors: molded grating 5.1 on ultimate capacity; pultruded grating 2.1 to 3.1. Maximum recommended load must not be exceeded at any given clear span.

Grating	Depth	Clear Span (ft)	Max Uniform Load (psf)
Molded 1″	1″ (25mm)	2 - 4	300 - 1000
Molded 1-1/2″	1-1/2″ (38mm)	3 - 5	250 - 750
Molded 2″	2″ (51mm)	4 - 6	200 - 500
HLC 1-1/2″	1-1/2″ (38mm)	4 - 6	Vehicular / forklift
HLC 2″	2″ (51mm)	5 - 7	Vehicular / forklift
Pultruded I4000	1″ - 1-1/2″	3 - 6	400 - 1200
Pultruded T3320	1-1/4″ - 2″	4 - 7	Vehicular / HI



Pultruded Grating - high load / long span

6. In-House Fabrication & Custom Work

All ZeAllgrate products are manufactured and fabricated in-house, giving full control over quality, lead time and dimensional accuracy. Standard fabrication services include:

- Cut-to-size panels with factory-sealed cut edges
- Notching, coping and angled cuts for stairs and ramps
- Drilling and countersinking for bolt-down installation
- Mitered and radius fabrication for curved applications
- Custom panel shapes for equipment access and mezzanines
- Assembly of handrail, ladder and stair systems
- Marking and tagging per project schedule

Manufacturing Capacity

Detail	Capacity
Molded grating	Multiple open-mesh presses, panel sizes to 4 x 12 ft
Pultrusion lines	Multiple profiles: I-bar, T-bar, tube, channel, angle
Fabrication	CNC cutting, drilling, routing, assembly jigs
Quality control	Dimensional, visual and load verification in-house

7. Industries & Applications

Where ZeAllgrate products are used:

- Chemical & petrochemical processing

- Oil, gas & offshore platforms
- Water & wastewater treatment
- Power generation & utilities
- Food & beverage processing
- Pharmaceutical & cleanroom facilities
- Pulp & paper mills
- Marine & shipbuilding
- Mining & mineral processing
- Architecture & building facades
- Transit, tunnels & infrastructure
- Sports, recreation & aquatic facilities

Application	Recommended Product
Process platform & walkway	Molded or pultruded grating, grit top
Trench & pit covers	FRP grating covers, solid or vented
Stair treads & platforms	Pultruded stair systems
Handrail & guardrail	FRP handrail systems
Access ladders & cages	FRP ladder systems
Structural frames & supports	Pultruded structural profiles

8. Quality, Certification & Warranty

ZeAllgrate operates under an ISO 9001:2015 certified quality management system. Every production stage - resin formulation, molding, pultrusion, fabrication and packing - is subject to documented inspection and traceability.

- ISO 9001:2015 certified facility
- Material certificates with every shipment
- Load test reports on request
- DNV / ABS marine-grade product options
- SGS / Intertek third-party inspection available
- Traceability from resin batch to finished panel

Item	Detail
Quality system	ISO 9001:2015
Flame spread	ASTM E-84 Class 1, rating 25 or less
Load testing	ANSI / NAAMM methods
Third-party inspection	SGS, Intertek, DNV, ABS on request

9. Engineering Support & Contact

Our technical and sales team supports projects from selection through installation. We provide load tables, chemical resistance data, drawings and on-site support for major projects.

Service	Contact
Product selection & specification	sales@izeall.com
Engineering & load data	engineering@izeall.com
Quotations & pricing	sales@izeall.com
Order status & logistics	sales@izeall.com
After-sales & technical support	support@izeall.com

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Our sales and engineering team responds to all inquiries within 30 minutes on business days (Monday to Friday, 8:30 - 17:30 China Standard Time). For urgent offshore or OEM projects, contact our export team directly by phone at +86-513-6681-9918.