安装与维护手册 · Installation & Maintenance Manual

FRP Grating Installation and Maintenance Manual

NANTONG ZEALL (ZeAllgrate) · founded 2004 · plant 20,000+ m² · 200+ staff · exported to 40+ countries · indicative figures for preliminary design; confirm against project calculation before ordering.

1. Unloading and storage

Step	Practice	Note
Unloading	Crane with soft slings, or forklift under the full panel	Never drop panels
Stack height	Max 6 packs on a flat, dry floor	Use dunnage at 1/4 points
Indoor storage	Cover from direct UV, ventilated	UV degrades surface over years
Outdoor storage	Max 30 days, white sheet covered	Do not wrap in black plastic (heat)

2. Installation sequence

1) Check support structure is level and within tolerance. 2) Lay neoprene strip on steel supports. 3) Dry-fit panels, leave 10-15 mm end gap and 6-10 mm side gap. 4) Fit clips at every support and every corner. 5) Hand-tighten bolts; do not over-torque. 6) Seal any cut edge with matched resin within 24 hours. 7) Walk the deck and re-torque after 2 weeks of service.

3. Routine maintenance

Task	Frequency	Method
Visual inspection	Monthly	Check cracked bars, loose clips, edge seal
Clip torque check	Quarterly, first year	Hand-tight, re-torque if loose
Washdown	As needed	Fresh water, low-pressure, no acid
Grit top renewal	As needed	Top-up with matched gritted resin
Edge seal check	Annually	Touch up any bare roving
UV-exposed surface	Every 3-5 years	Top-coat with matched resin on request

4. Do-not list

Do not cut with an axe or nippers. Do not over-torque clips. Do not walk on a panel without checking the support spacing first. Do not use a solvent-based cleaner on isophthalic resin. Do not cover the panel with a heat source > 80 °C without checking the resin grade. Do not lift by one corner.

Appendix A — Multilingual glossary (EN / DE / ES / FR)

English	Deutsch (DE)	Español (ES)	Français (FR)
FRP / GRP grating	GFP-Gitterrost / GFK-Gitterrost	Rejilla PRFV	Caillebotis PRV
Fibreglass / fiberglass	Glasfaser / GFK	Fibra de vidrio	Fibre de verre
Moulded grating	Pressguss-Gitterrost	Rejilla moldeada	Caillebotis moulé
Pultruded grating	Pultrusions-Gitterrost	Rejilla pultruida	Caillebotis pultrudé
Resin	Harz	Resina	Résine
Isophthalic polyester	Isophthalsäure-Polyester	Poliéster isoftálico	Polyester isophtalique
Vinyl ester	Vinylester-Harz	Resina viniléster	Résine vinylester
Barcol hardness	Barcol-Härte	Dureza Barcol	Dureté Barcol
Load / deflection	Last / Durchbiegung	Carga / flecha	Charge / flèche
Span	Stützweite	Luz	Portée
Clip / fastener	Klammer / Befestiger	Abrazadera / fijación	Agrafe / fixation
Kick plate / toe board	Riffelblech / Fußleiste	Zócalo	Plinthe
Handrail / guardrail	Handlauf / Schutzgeländer	Pasamanos / barandilla	Garde-corps / main courante

DE = GFK (glasfaserverstärkter Kunststoff) · ES = PRFV (plástico reforzado con fibra de vidrio) · FR = PRV (plastique renforcé de fibres de verre).

Appendix B — How to order

Step	What to send us	What we return
1. Brief	Application, medium, temperature, span, load	Recommended build-up and resin
2. Drawing	Plan view, support layout, cut-outs	Cutting list and panel count
3. Confirm	Resin grade, colour, surface (smooth / concave / grit)	Pi with price and lead time
4. Production	Deposit received	Production, QA, packing
5. Shipment	Balance or LC	FOB Shanghai / CFR / CIF per agreed term

Commercial term	Value
Minimum order (MOQ)	10 m²
Standard lead time	12-36 working days (stock to production)
Exceptional lead time	Oversize, custom colour, new die, special resin — confirmed separately
Standard panel	1220 x 3660 mm; cut-to-size on diamond saw
Density	1.5-2.0 g/cm³ depending on resin and glass content
Barcol hardness	>= 40 on a sound panel
Quality system	GB/T19001-2000 idt ISO9001:2000 · reg. 01708Q11888R0S
Product test report	ASTM F3059 report 211122012SHF-001 (grating only)
Contact	sales@gratingfrp.com · www.gratingfrp.com · Nantong, China

We do not issue SGS load reports, ABS product design assessments, or named-customer case references without a written release. Any figure in this sheet is indicative for preliminary design and must be confirmed by a stamped project calculation before ordering.

Issued 2026-11-16 · www.gratingfrp.com · sales@gratingfrp.com · Figures are indicative and do not replace a project-specific load calculation.