

Mateenbar™ 46

Mateenbar™ 46 is a glass fibre-reinforced polymer (GFRP) rebar designed for concrete applications where long-term durability and corrosion resistance are essential. Mateenbar™ 46 is manufactured to the highest quality standards, it delivers reliable performance while eliminating the corrosion issues that affect steel in harsh environments.

Ideal for foundations, driveways, pool decks, and patios where moisture or chemical exposure and durability are key considerations.

Rust-Free. Built to Last.

Trusted Performance

Mateenbar™ 46 provides a rustproof, high-strength alternative to traditional steel rebar, ensuring reliable performance without the risk of corrosion. The lightweight material speeds up installation, while consistent quality ensures your specifications are met from start to finish.

- Corrosion-resistant
- Highly Durable
- 4X Lighter Than Steel
- Whole of Life Savings
- Faster Install

Standards and Design Codes

Mateenbar™ 46 rebar is engineered and tested to comply with the following industry standards, codes, and specifications for GFRP reinforcement.

MATERIAL STANDARDS: AS 5204 Grade 46, ASTM D7957 & CSA S807 Grade I material standards
The naming of bar sizes differ between AS, ASTM & CSA standards, contact your Mateenbar™ representative for details

RESIDENTIAL CONCRETE: ICC-ERR 5548

COMMERCIAL CONCRETE: ACI 440.11-22 and AASHTO LRFD Bridge Design Guide Specifications for GFRP-Reinforced Concrete

MASONRY: TMS 402/602-22 Appendix D as reinforcing for masonry walls

Mateenbar™ 46 Technical Data

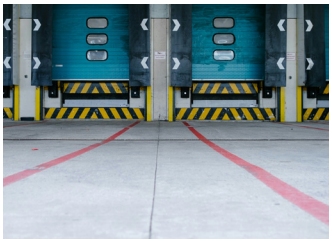
	Units	6mm	8mm*	10mm	12mm	16mm	20mm	22mm	24mm	32mm
Guaranteed Tensile Force	kN	27	42	60	97	130	182	241	297	460
Guaranteed Tensile Strength	MPa	840	840	830	740	650	640	620	580	560
Elastic Modulus	GPa	46.8								
Guaranteed Transverse Shear Capacity	MPa	150								
Weight	g/m	97	97	170	315	415	590	780	1030	1680
Nominal Cross-sectional Area	mm^2	32	50	71	129	199	284	387	510	819
Outer Diameter (including ribs)	mm	8.2	8.2	10.3	14.0	16.0	19.0	21.8	25.0	31.4
Glass Transition Temperature	100°C									
Primary Materials	Epoxy Backboned Vinylester and Corrosion-resistant E-CR Glass									

The data herein applies to straight bars only. For data on bends, please refer to the Mateenbar™ rebar bends data sheet.
For other sizes refer to the Mateenbar™ 60 Technical Data Sheet.
*8mm is not a standard size as per AS 5204.

Typical Concrete Applications

RESIDENTIAL	COMMERCIAL/LIGHT INDUSTRIAL	MASONRY
• Driveways	• Warehouse Floors	• Basement Walls
• Footpaths	• Agricultural Slabs	• Step Crack Repair
• Patio	• Loading Docks	• Retrofit for Existing Masonry
• Pool Decks and Walls	• Architectural Precast	• Exterior Walls
• Slabs/Foundations	• Truck Aprons	
• Footings	• Pour Back Slabs	
• ICF Construction		







Structural or consented applications require project-specific engineering design and applicable building code approvals.

Infrastructure-Grade Quality Assurance

Every Mateenbar™ product is manufactured under ISO-certified quality control systems. This reduces engineering, procurement, and asset risk.

Mateenbar™ is certified under the Environmental Product Declaration (EPD) system, giving professionals the information required to make informed decisions that support both structural integrity and sustainability goals.

Global technical support and backed by Pultron's structural performance warranty.

Pultron Infrastructure Solutions

Pultron Composites is a global specialist in the development and manufacture of high-performance glass fibre-reinforced polymer (GFRP) composites using the pultrusion process. We engineer GFRP composite solutions for infrastructure that deliver exceptional durability and long-term performance.

INFRASTRUCTURE SOLUTIONS PRODUCT RANGE

- **Mateenbar™ Concrete Reinforcement** – GFRP rebar technology for projects ranging from residential to heavy load application in demanding environments. Mateenbar™ Bend shapes are available.
- **Mateenbar™ Mesh** – pre-assembled grids of Mateenbar™ 46 rebars for a lighter and faster to install.
- **Dowels** – Corrosion-resistant joining system for concrete pavement construction.
- **Form Ties** – High-strength form tie system that requires no patching after formwork removal.
- **Rock Bolts and Soil Nails** – Precision machined-threaded bolts engineered for maximum shear strength in tunnelling, ground retention, and stabilisation applications.

Contact us for orders and technical support

We work in partnership with engineers, contractors, and asset owners providing technical guidance, code-compliant infrastructure products and reliable supply for critical infrastructure projects.

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mateenbar™
Leading the World in Durable Fibreglass Rebar

ISO 9001 SYSTEM CERTIFICATION SGS

EPD INTERNATIONAL EPD SYSTEM

Manufactured in New Zealand

Testing, Standards & Warranty: All Mateenbar™ products are tested in accordance with recognised international standards, including ASTM and ACI methodologies, and are supplied subject to Pultron Composites' standard warranty terms. Information provided reflects current production data and is believed to be reliable. Pultron Composites reserves the right to make improvements to products and processes that may result in changes to physical or mechanical properties.