



Fibreglass Rebar Substations

Mateenbar™ fibreglass rebar's non-conductive properties provide essential protection for infrastructure, equipment and people in substation installations. By eliminating the risks associated with traditional steel reinforcement, it ensures safer operations around Static Var Compensators and other equipment where high electromagnetic fields are generated.

Mateenbar™ also delivers exceptional durability and resistance to corrosion, extending the service life of concrete structures, reducing the need for disruptive and costly maintenance or replacement.

Trusted Performance

The non-electromagnetic properties and enhanced durability of Mateenbar™ make it the preferred choice for utilities seeking safer reinforcement and long-term infrastructure reliability. Its non-electromagnetic characteristics prevent eddy current generation, eliminating heating, electrical hazards, and loss of electrical efficiency.



Non-conductive



Non-electromagnetic



Non-magnetic



Stronger



Rustproof

Designed to International Standards

Mateenbar™ is engineered to meet key international standards, codes, and specifications, giving engineers and project managers confidence in its performance, safety, and compliance. Design standards make it easy to switch from designing with steel to designing with GFRP Rebar.

MATERIAL STANDARDS: Mateenbar™ complies with the Australian Standard AS 5204:2023 Fibre-reinforced Polymer Bars, ASTM D7957, ASTM D8505 and, CSA-S807 Grade III.

COMMERCIAL CONCRETE: Mateenbar™ can be used in commercial concrete design using concrete code ACI 440.11-22 and ICC-ESR 5548.

Substation Projects



Kikiwa Substation, Nelson, NZ



Penrose Substation, NZ



Alligator Creek, Queensland, AU

Typical Substation Applications

Mateenbar™ is designed to reinforce concrete in:

- ✓ Foundation slabs
- ✓ Electric SVC equipment pads
- ✓ Footings



Technical Data:
Mateenbar™ 60GPa
as per AS 5204

NOMINAL DIAMETER			NOMINAL CROSS-SECTIONAL AREA	GUARANTEED TENSILE STRENGTH	ELASTIC MODULUS	WEIGHT	OUTER DIAMETER (INCLUDING RIBS)
Bar Size	AS 5204	ASTM	mm²	MPa	GPa	g/m	mm
#2	6	M6	32	1000	60	97	8.2
#3	10	M10	71	1000	60	185	10.8
#4	12	M13	129	1000	60	315	14.0
#5	16	M16	199	1000	60	476	17.2
#6	20	M19	284	1000	60	702	20.6
#7	22	M22	387	900	60	960	24.1
#8	24	M25	510	900	60	1252	27.4
#9	28	M29	645	800	60	1575	30.8
#10	32	M32	819	800	60	2050	35.0

Note: the Nominal Bar Sizes are for reference purposes only, the Nominal Cross-Sectional Areas must be used for all engineering calculations.

Primary materials: epoxy backboned vinylester and corrosion resistant E-CR glass.
The data herein applies to straight bars only.
Please contact our team for information on the material properties, shape availability and dimensional limitations of bent bars.

Storage & Handling

Mateenbar™ is highly durable, however, UV exposure may cause surface discoloration, fading or chalking. These effects are purely cosmetic and do not impact performance. For extended sunlight exposure, using a protective cover is recommended.

When handling and installing, use a fine-grit carbide grit saw blade, grinder or diamond blade for cutting; sealing ends is unnecessary. Space chairs properly for adequate concrete cover and use standard tying methods.



Contact your nearest Mateenbar™ representative

Australia: (+61) 452 601 721 or (+61) 452 601 790 | salesau@mateenbar.com

New Zealand: (+64) 6 867 8582 | salesnz@mateenbar.com

mateenbar.com.au



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