mateenbar™

Leading the world in durable rebar

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Mateenbar™ is a glass-fibre reinforced polymer (GFRP) rebar. It is the proven solution to corrosion, replacing steel rebar for concrete reinforcement.

Price Competitive

- Installed cost is competitive with galvanized steel.
- Excellent whole-of-life cost savings compared to steel.

Zero Concrete Spalling

- Eliminates the risk of corrosion and concrete spalling.

GFRP Design Codes and Guides

- International codes and standards for GFRP rebar allow engineers to easily upgrade from steel rebar.

Contact us

Get the lowest price without compromising performance on your next project.

If you would like to receive further information or discuss an upcoming project, contact us or visit: **mateenbar.com**

Mateenbar Limited, specializes in the manufacture of Mateenbar™ – a high performance, pultruded glass-fibre reinforced polymer (GFRP) rebar used for concrete reinforcement in challenging environments.

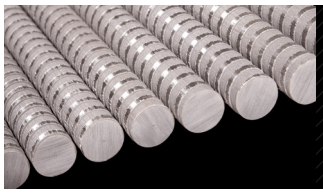
Mateenbar™, a technology from Pultron Composites, is recognized globally for delivering the best price-performance ratio. It is a market leader in durable concrete reinforcement, supported by global approvals and references.

With strategic manufacturing sites, we deliver worldwide, offering competitive prices and reliable delivery.

Mateenbar™ is tested and proven

- Over 1,500 projects worldwide
- Over 2,500 independent test reports
- ISO 9001 certified facilities

Mateenbar Products



Mateenbar™
- Ribbed reinforcement
- Available from 6mm to 32 mm

Mateendowel™*
- Smooth reinforcement
- Available from 6mm to 32 mm

*Contact us for mateendowel™ specifications

Advantages

Whole of Life Savings
- Design life cycle is 100 years
- Zero maintenance cost

High Tensile Strength
- Twice the strength of steel

Corrosion Free
- Exceptional resistance to water and salinity
- Does not rust or leach

Highly Chemical Resistant
- Exceptionally resistant to a range of chemicals

Non-electromagnetic
- Non-conductive and electro-magnetically neutral

Non-magnetic
- No interference with sensitive enquipment

Lightweight
- ¼ the weight of steel allows faster installation reduced injury risks & lower transportation costs

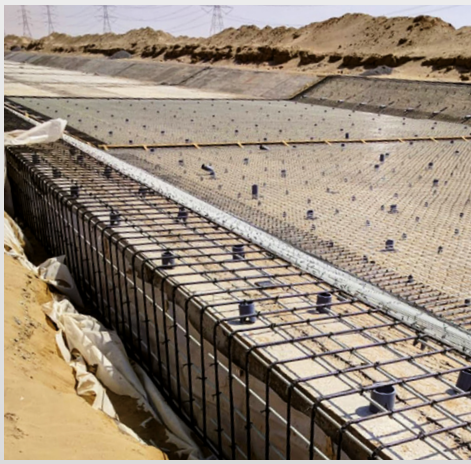
Easy to cut and install
- Cut on-site using standard cutting tools
- Bends delivered preformed

Low Thermal Conductivity
- Maintains good thermal insulation values

No Thermal Cycling Impact
- Thermal expansion coefficient closer to concrete than steel.

Highly Durable
- Over 100 years retention of strength and modulus in high pH environments

Low Environmental Impact
- Consumes approximately 70% the embodied energy of steel



Challenging Environments

Mateenbar™ offers an extended asset lifespan in the most challenging and corrosive environments.

Corrosion Free

- Coastal. marine and desert regions
- Underwater structures
- Roads and infrastructure
- Drainage arch and box culverts
- Flood control channels
- Building foundations
- Marine pre-cast sea walls
- Slab-on-grade and pavements
- Pipe sleepers
- Bridge decks and approach slabs
- Mechanically stabilized earth (MSE) walls

Thermal insulator

- Energy efficient buildings
- Refrigerated warehouses

High Chemical Resistance

- Industrial applications
- Sewage treatment plants
- Agricultural facilities
- Industrial facilities

Non-conductive /Non-magnetic

- Hospitals
- Airport compass calibration pads
- Power plants and transformer sites
- Aluminum smelters
- Light Rail

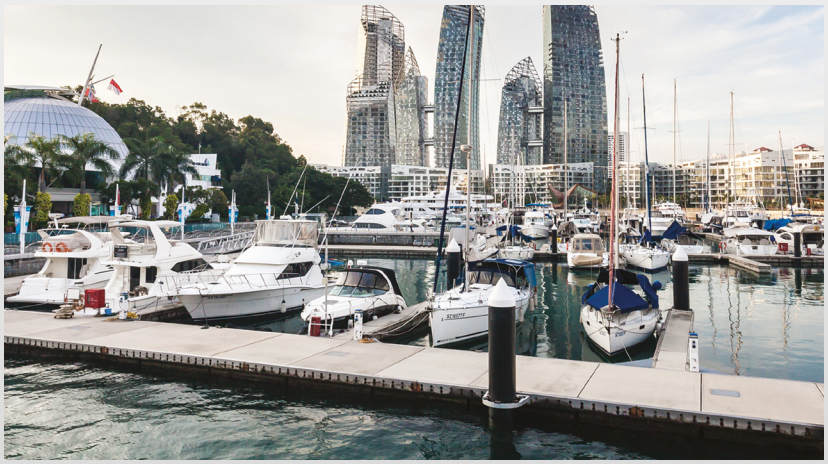
Easy to cut

- Tunnels (soft eyes)
- Mining

> *"Traditional corrosion mitigation efforts center on delaying the symptoms rather than curing the disease."*
>
> ANTONIO NANNI,
> INAUGURAL SENIOR SCHOLAR
> UNIVERSITY OF MIAMI

Design Flexibility

USA	ACI 440.1R: Guide for the design and Construction of Structural Concrete Reinforced with FRP Bars AASHTO LRFD: Bridge Design Specifications for GFRP-Reinforced Concrete Bridge Decks and Traffic Railing
Europe	FIB Task Group 9.3 - Bulletin 40 - FRP Reinforcement in RC Structures
Saudi Arabia	ACI 440.1R
Canada	CAN/CSA S806: Design of Buildings with Fibre Reinforced Polymers CAN/CSA S6: Canadian Highway Bridge Design Code



Technical Data

Mateenbar™ 60 (CSA Grade III)

	Units	#2 (6mm)	#3 (10mm)	#4 (13mm)	#5 (15/16mm)	#6 (19/20mm)	#7 (22mm)	#8 (25mm)	#9 (30mm)	#10 (32mm)
Guaranteed tensile strength	kN	32	71	129	199	284	387	510	600	735
	kip	7.2	16.0	29.0	44.0	64.0	87.0	115.0	134.9	165.2
Tensile modulus	GPa	60								
	ksi	8700								
Guaranteed transverse shear capacity	MPa	180								
	ksi	26.1								
Primary Materials		Epoxy Backboned Vinylester and Corrosion Resistant E-CR Glass								
Weight	g/m	97	185	315	476	702	960	1252	1575	2050
	lb/ft	0.07	0.12	0.21	0.32	0.47	0.64	0.84	1.06	1.37
Nominal cross-sectional area	mm^2	32	71	129	199	284	387	510	645	819
	in^2	0.049	0.110	0.200	0.310	0.440	0.600	0.790	1.000	1.270
Outer diameter (including ribs)	mm	8.0	10.8	14.0	17.2	20.5	24.1	27.6	30.8	35.0
	in	0.315	0.425	0.551	0.677	0.807	0.949	1.087	1.213	1.378

Please contact our team for information on the material properties, shape availability and dimensional limitations of bent bars.

Direct comparisons: Steel and mateenbar™

Material Properties	Units	Mateenbar™	Stainless Steel (ASTM A955)	Steel (ASTM A615)
Tensile strength	MPa	800 - 1100	420	420
	ksi	116 - 159	60	60
Tensile modulus	GPa	46 - 60	200	200
	KSI	6675 - 8700	29000	29000
Bond strength	MPa	10	10	10
	PSI	1450	145	1450
Thermal conductivity	W/ (m·°C)	< 1 (1)	16	54
	BTU/(hr·ft·°F)	< 0.6 (1)	10	32
Electrical resistivity	Ω·m	> 200 x 10^{10}	1 x 10^{-4}	1.5 x 10
	Ω·in	> 8 x 10^{13}	4 x 10^{-5}	6 x 10
Unit weight	kg/m^3	2100	7800 - 8000	7850
	lb/ft^3	130	485 - 500	490

(1) Approximate value

Get high performance composite rebar at the lowest price from the market leader.

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