

Leading the world in durable rebar

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.



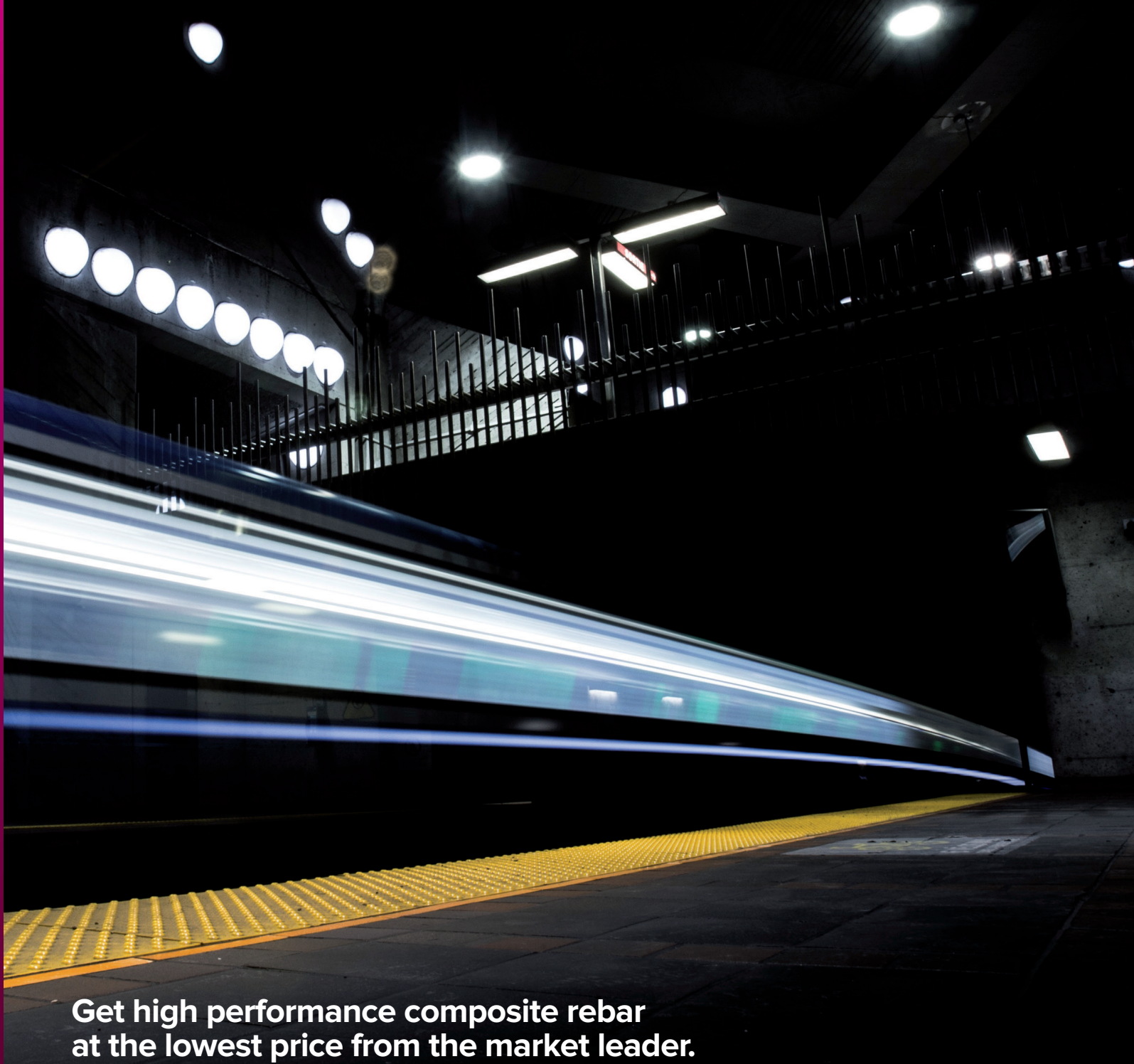
GFRP Design Codes and Guides

- 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, email: service@mateenbar.com or visit: mateenbar.com



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

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Leading the world in durable rebar



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



All Mateenbar™ products have been tested according to ASTM, and/or ACI methods. Mateenbar™ products are sold subject to Mateenbar Limited standard warranty and nothing herein shall expand or extend such warranty. The data contained herein is considered representative of current production and believed to be reliable. Mateenbar Limited reserves the right to make improvements in the product and process which may result in benefits and/or changes to some physical and mechanical properties.

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 equipment



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
 - 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
 - Roads and infrastructure
 - Mechanically stabilized earth (MSE) walls
- 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

- Thermal insulator**

 - Energy efficient buildings
 - Refrigerated warehouses
- 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
Canada	CAN/CSA S806: Design of Buildings with Fibre Reinforced Polymers CAN/CSA S6: Canadian Highway Bridge Design Code
Europe	FIB Task Group 9.3 - Bulletin 40 - FRP Reinforcement in RC Structures



Technical Data

Mateenbar 46 (ASTM D7957, ACI 440.6)

	Units	#2 (6mm/0.23in)	#3 (10mm/0.39in)	#4 (13mm/0.51in)	#5 (16mm/0.62in)	#6 (19mm/0.74in)	#7 (22mm/0.86in)	#8 (25mm/0.98in)	#10 (32mm/1.25in)
Guaranteed tensile force	kN	27	59	96	130	182	241	297	437
	kip	6.1	13.2	21.6	29.1	40.9	54.1	66.8	98.2
Tensile modulus	GPa	46							
	ksi	6670							
Guaranteed transverse shear capacity	MPa	150							
	ksi	23.2							
Primary Materials	Epoxy Backboned Vinylester and Corrosion Resistant E-CR Glass								
Weight	g/m	97	144	315	415	589	780	1030	1680
	lb/ft	0.07	0.096	0.211	0.278	0.395	0.524	0.692	1.128
Nominal cross-sectional area	mm²	32	71	129	199	284	387	510	819
	in²	0.049	0.11	0.20	0.31	0.44	0.60	0.79	1.27
Outer diameter (including ribs)	mm	8.2	10.0	14.0	16.0	19.0	21.8	25.0	31.4
	in	0.250	0.375	0.500	0.625	0.750	0.875	1.000	1.270

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

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 force	kN	27	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	mm²	32	71	129	199	284	387	510	645	819
	in²	0.049	0.110	0.200	0.310	0.440	0.600	0.790	1.000	1.270
Outer diameter (including ribs)	mm	8.2	10.8	14.0	17.2	20.6	24.1	27.4	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/m³	2100	7800 - 8000	7850
	lb/ft³	130	485 - 500	490

(1) Approximate value