Technical Data

Mateenbar™ 60 GFRP Rebar

Mateenbar™ 60 (ASTM D8505, CSA-S807 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 | |
| Elastic Modulus | GPa | 60 | | | | | | | | | |
| | ksi | 8700 | | | | | | | | | |
| Guaranteed transverse shear capacity | MPa | 180 | | | | | | | | | |
| | ksi | 26.1 | | | | | | | | | |
| 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 | |
| | 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 | 8.2 | 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 | |
| Primary Materials | | Epoxy Backboned Vinylester and Corrosion Resistant E-CR Glass | | | | | | | | | |

The data herein applies to straight bars only. For data on Mateenbar™rebar bends, please refer to the Mateenbar™ rebar bends data sheet.

Code-Approved and Proven Performance

MATERIAL STANDARDS

 $\label{eq:material} \textbf{Mateenbar}^{\scriptscriptstyle{\text{M}}} \ \textbf{60} \ \textbf{complies} \ \textbf{with} \ \textbf{ASTM} \ \textbf{D8505} \ \textbf{and} \ \textbf{CSA-S807} \ \textbf{Grade} \ \textbf{III} \ \textbf{material} \ \textbf{standards}.$

RESIDENTIAL CONCRETE

Mateenbar[™] 60 can be used in residential concrete, including footings and foundation walls, as prescribed in ICC-EER 5548, or as designed using ACI 332 and ACI 440 design methodology.

COMMERCIAL CONCRETE

Mateenbar[™] 60 can be used in commercial concrete design using concrete code ACI 440.11-22, ICC-ESR 5548 and AASHTO LRFD Bridge Design Guide Specifications for GFRP-Reinforced Concrete.

MASONRY

Mateenbar™ 60 can be used with TMS 402/602-22 Appendix D as reinforcing for masonry walls.

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