



Durable Fiberglass Rebar



Blackbends™ are corrosion-free, precision-formed GFRP bends for large, industrial, and infrastructure projects where code-compliant reinforcement is essential. Made in the USA and fully Build America, Buy America (BABA) compliant, they are available in standard stock L-Bend sizes and a wide range of made-to-order shapes – including U-Bars, stirrups, hooks, and pile cages – for design flexibility. Ready to install without the delays or risks associated with field bending of steel, Blackbends™ save labor, reduce on-site errors, and deliver lightweight, rustproof, UV-resistant performance for demanding concrete structures.

Build Stronger. Faster. Better.

Trusted Performance & Formed to Last

Blackbends™ deliver the same corrosion-free reliability as our straight bars. Lightweight and easy to handle, they provide labor savings, speed up placement, and reduce installation errors. With available standard stock L-Bend sizes and a wide range of made-to-order shapes for complex reinforcement needs, Blackbends™ keep projects efficient, on schedule, and built to last.



Meets or Exceeds Standards

Blackbends™ are engineered and independently tested to meet or exceed industry standards, codes, and specifications for GFRP reinforcement. Factory-formed to ACI and ASTM guidance, with strength adjustments built into the design, they deliver reliable, code-compliant performance you can trust across large industrial, and infrastructure applications.

MATERIAL STANDARDS: ASTM D7957, ASTM D8505 and CSA-S807 Grade III

RESIDENTIAL & COMMERCIAL CONCRETE: ICC EER-5548, ICC ESR-5548, ACI 117, ACI 332 & ACI 440.11

MASONRY: TMS 402/602-22

Standard Stock Bends & Applications

Blackbends™ are available in stocked 90° L-Bend sizes, providing a dependable, ready-to-install solution. These stocked bends simplify planning and speed up installation where Mateenbar60™ is specified. For more complex layouts, a wide range of made-to-order shapes – including U-Bars, stirrups, hooks, and pile cages – ensures flexibility and dependable performance in higher-load applications and demanding project environments.

APPLICATIONS: Bridge decks & traffic barriers • Seawalls, piles, and coastal structures • Stadiums & data centers • Multi-story columns & beams • Commercial foundations & wall panels • Power plant facilities • Rail & transit infrastructure

90° Bends



| BAR SIZE | DESCRIPTION |
|----------|-------------|
| #3 | 24" x 24" |
| #5 | 36" x 36" |

1. All bends are packaged in bundles of 20, with 500 bends per pallet for ease of handling, storage, and transport.
2. Blackbends™ available in sizes #3 - #8.



Leading the World in Durable Fiberglass Rebar

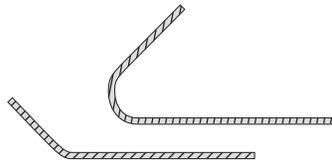
Blackbends™ Technical Data

| BAR NUMBER | NOMINAL DIAMETER | | GUARANTEED TENSILE FORCE | | ELASTIC MODULUS | | GUARANTEED TRANSVERSE SHEAR CAPACITY | | WEIGHT | NOMINAL CROSS-SECTIONAL AREA | | OUTER DIAMETER (INCLUDING RIBS) | |
|------------|------------------|-------|--------------------------|------|-----------------|------|--------------------------------------|------|--------|------------------------------|-----------------|---------------------------------|-------|
| | mm | in | kN | kip | GPa | ksi | MPa | ksi | | lb/ft | mm ² | in ² | mm |
| #3 / M10 | 9.5 | 0.375 | 71 | 16.0 | 50 | 7250 | 180 | 26.1 | 0.121 | 71 | 0.110 | 10.0 | 0.394 |
| #4 / M13 | 12.7 | 0.500 | 124 | 27.9 | 50 | 7250 | 180 | 26.1 | 0.210 | 129 | 0.200 | 14.0 | 0.551 |
| #5 / M16 | 15.9 | 0.625 | 181.5 | 40.8 | 50 | 7250 | 180 | 26.1 | 0.289 | 199 | 0.310 | 16.0 | 0.630 |
| #6 / M19 | 19.1 | 0.750 | 254.9 | 57.3 | 50 | 7250 | 180 | 26.1 | 0.423 | 284 | 0.440 | 20.0 | 0.787 |
| #7 / M22 | 22.2 | 0.875 | 337.2 | 75.8 | 50 | 7250 | 180 | 26.1 | 0.535 | 387 | 0.600 | 22.0 | 0.866 |
| #8 / M25 | 25.4 | 1.000 | 422.1 | 94.9 | 50 | 7250 | 180 | 26.1 | 0.695 | 510 | 0.790 | 25.0 | 0.984 |

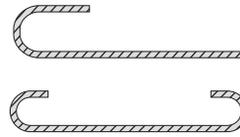
1. Primary materials: vinylester and corrosion resistant E-CR glass.
2. Bond strength exceeds ASTM D7957 and D8505.
3. For details on Greenbar2X®, Mateenbar60™ and any related bends product, refer to those specific product brochures.

Made-to-order BlackBends™

+/- 90° Bends



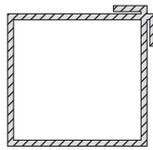
Stirrups



Large Radius



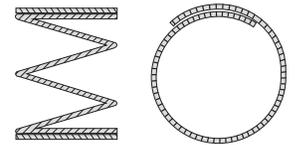
Squares with Overlap



U/C Shapes



Spirals & Hoops



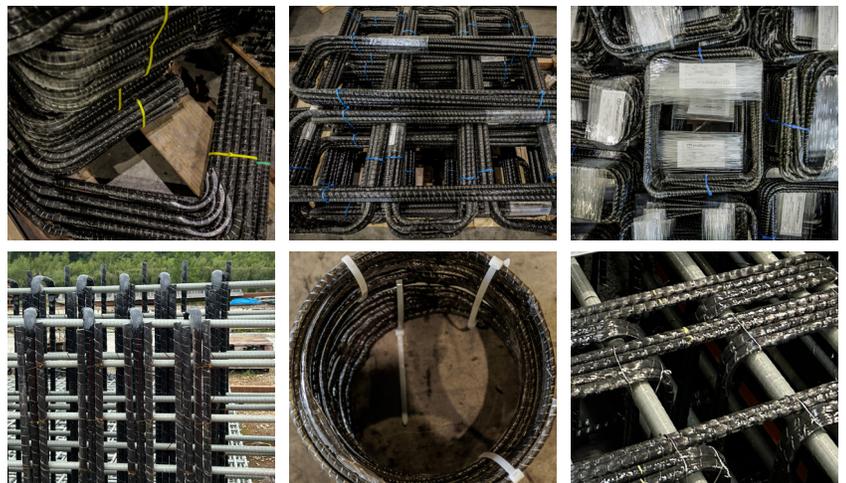
1. Lead time for made-to-order bends will be determined once the final bar is approved.
2. Made-to-order Blackbends™ require a minimum order of 500 pieces.
3. Additional quantities do not need to be in 500-piece increments.

Ready To Build?



Contact Us Today.

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mateenbar®
Leading the World in Durable Fiberglass Rebar



Over 30 Years
Proven Global Service



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