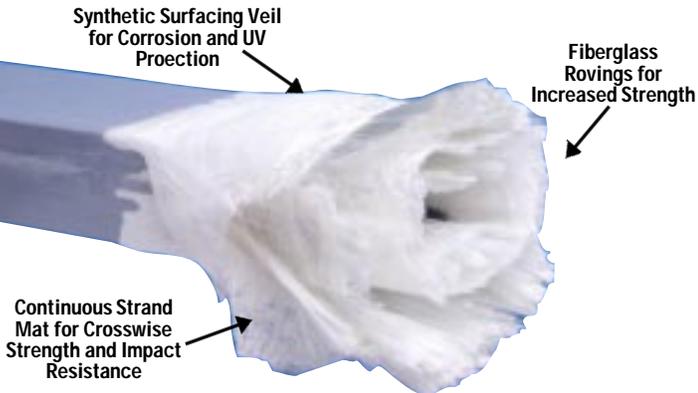


COMPARE

EXTREN® VS. STEEL



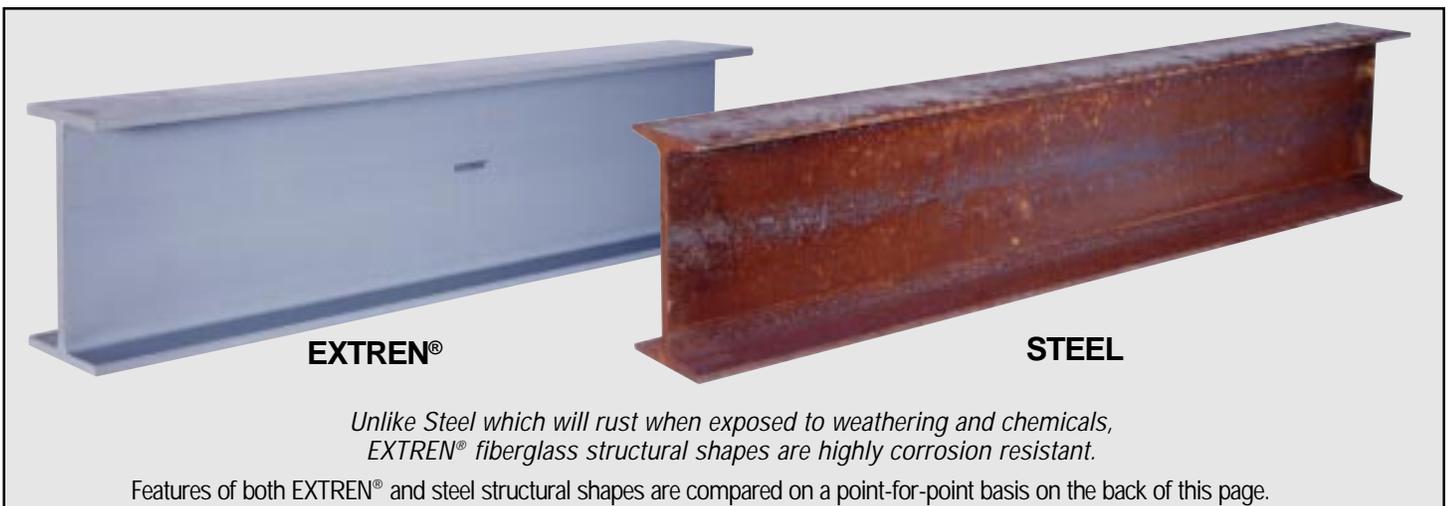
EXTREN® fiberglass structural shapes are:

- CORROSION RESISTANT
- HIGH STRENGTH
- LOW MAINTENANCE
- NON-CONDUCTIVE
- EMI/RFI TRANSPARENT
- LIGHTWEIGHT



Photo above: What you see here is not the erection of a steel structure. It is a structure being assembled using EXTREN® fiberglass structural members. Today, EXTREN® is replacing steel in a wide variety of structural applications. Why? Because EXTREN® is a problem solving material.

Photo left: Imagine being able to do this with steel beams! Lightweight EXTREN® beams weigh 20% that of steel, for reduced labor costs and easy installation.



COMPARE!**EXTREN®
FIBERGLASS STRUCTURAL SHAPES****VS.****STEEL
A-36 CARBON**

| | | |
|-------------------------------|--|---|
| CORROSION RESISTANCE | EXTREN® is available in either polyester or vinyl ester resin for resistance to a broad range of chemicals. Painting required only when exposed to direct sunlight. | Subject to oxidation and corrosion. Requires painting or galvanizing for many applications. |
| WEIGHT | Lightweight — weighs 75% less than steel. 1/2" thick plate = 4.7 lbs./sq. ft. | Could require lifting equipment to move and place. 1/2" thick plate = 20.4 lbs./sq. ft. |
| CONDUCTIVITY | Does not conduct electricity. Low Thermal Conductivity 4 (BTU/SF/HR/F°/IN). | Conducts electricity. Grounding potential. Thermal Conductivity 260-460 (BTU/SF/HR/F°/IN). |
| STRENGTH | EXTREN® has a high strength-to-weight ratio, and pound-for-pound is stronger than steel in the lengthwise direction. Ultimate flexural strength (Fu) LW = 30 KSI, CW = 0 ¹ KSI | Homogeneous material. Yield strength (Fy) 36 KSI |
| STIFFNESS | Flexural modulus LW = 2.5 KSI, CW = .8 KSI LW=Lenthwise; CW=Crosswise) Will not permanently deform under working load. | Flexural modulus 29 KSI |
| IMPACT RESISTANCE | Glass mat in EXTREN® distributes impact load to prevent surface damage even in sub-zero temperatures. Will not permanently deform under impact. | Can permanently deforms under impact. |
| EMI/RFI TRANSPARENCY | Transparent to EMI/RFI transmissions. | Can interfere with EMI/RFI transmissions. |
| VERSATILITY | Pigments added to the resin provide color throughout the part. Special colors available. | Must be painted for color. To maintain color and corrosion resistance, repainting may be required. |
| EASY FIELD FABRICATION | EXTREN® can be field fabricated using simple carpenter tools with carbon or diamond tip blades. Lightweight for easier erection and installation. | Often requires welding and cutting torches. Heavier material requires special handling equipment to erect and install. |
| COST | Lower installation and maintenance costs in industrial applications often equals lower lifecycle costs. | Lower initial cost. |

THE CHOICE! EXTREN® Fiberglass Structural Shapes and Plate!**STRONGWELL**

ISO-9001 Certified Manufacturing Plants

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