Best-in-Class Protection for Oilfield Tubulars

GlassBore® Glass Reinforced Epoxy (GRE) Lining Service

- Cost Effective
- Composite Strength
- Durable
- Holiday Free
- Proven Technology
- Premium Protection
### Specifications

**Temperature Rating** - 250°F

**Compression Ring Material** - Reinforced Nitrile Rubber

**Liner Material** - Glass Reinforced Epoxy

**Resin System** - Amine-Cured Epoxy

**Strength of Material** - To tensile limit of steel tubing

### Flow Characteristics

Hazen-Williams Coefficient = 150  
Absolute Roughness = 0.00021 inches

**Improved Flow Efficiency** - The GRE liner provides a smooth friction-reduced surface to increase the flowing efficiency of produced or injected gases and fluids. The chart illustrates nearly equivalent efficiency of flow through a string of GRE-lined premium tubing compared to that of new bare tubing in spite of the disproportionate diameter. As new tubing corrodes (Used Steel curve) the benefit of GlassBore® becomes even more apparent.

### Pressure Loss

![Pressure Loss Graph](image)

**Example**

Tubing = 2 3/8 IJ Premium  
Hazen-Williams C<sub>GlassBore</sub> = 150  
Hazen-Williams C<sub>Steel</sub> = 120  
Hazen-Williams C<sub>Used Steel</sub> = 80  
Inside Diameter<sub>Glassbore</sub> = 1.81 Inches  
Inside Diameter<sub>Steel</sub> = 1.99 Inches  
String Length = 5500 Feet  
Flow Rate = 1000 to 3500 bbl/day