

Fibrex[®]HT

MELT EXTRACT

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WHAT IS FIBREX[®]HT?

Fibrex[®]HT is a proprietary product researched and developed as an enhanced alternative to ME446 and ME430 stainless-steel fibres.

Fibrex[®]HT offers an enhanced alternative to standard ME446, one of the most commonly used fibres for refractory reinforcement. Fibrex[®]HT is a ferritic stainless steel with superior mechanical properties and enhanced oxidation resistance when compared with ME446. Through extensive R&D of the metallurgical composition and microstructural engineering, Fibrex[®]HT has been engineered to outperform ME446 and provide significant performance improvements of the refractory, leading to a greater number of key benefits.

Fibrex[®]HT contains up to 6% less chromium in the composition compared with ME446. This helps to reduce the overall chromium content in the refractory without compromising oxidation resistance or other mechanical properties.

With higher yield and tensile stress values compared with standard ME446, the enhanced properties of Fibrex[®]HT results in greater strength in the refractory.



The Benefits of FibreX HT

- ✓ Higher oxidation resistance - Increased thermal shock resistance
- ✓ Increased strength - Higher mechanical shock and refractory toughness.
- ✓ Lower thermal expansion - Reducing differential expansion and micro-cracking
- ✓ Higher ductility - Improves refractory defect tolerance
- ✓ Higher thermal conductivity - Dissipates energy efficiently and evenly.

Feature	Fibrex [®] HT	Standard 446
Chromium Content	Environmental & cost benefit with 6% less chrome	Higher chromium
Expected Refractory Performance	Higher crack resistance, greater toughness & longer life at high temp	Lower strength, lower ductility, shorter oxidative life
Return on investment	Enhanced ROI vs 446	Low cost, low performance option
Oxidation Resistance	Weight gain 4.5% at 1200°C / 24 hrs	Weight gain 7.3% at 1200°C / 24 hrs
Mechanical Strength	Significantly higher yield & tensile strength (Max tensile: 870 MPa)	Lower tensile strength (Max tensile: 593 MPa)