

Technical Data Sheet



FibreX HT Stainless Steel Fibres reinforce monolithic refractory against thermal and mechanical shock by reducing cracking and spalling susceptibility. FibreX HT is a new proprietary product researched and developed by Fibre Technology, as an enhanced alternative to 446 and 430 steel fibres. FibreX HT performs best in refractory operating in the following conditions:

- Thermal cycling to 1600°C*
- Continuous soaking to 1200°C
- Moderate-High mechanical shock
- Oxidising, Sulphur, Reducing, Hydrogen Atmospheres.

* *Dependant on the insulation properties of the refractory.*

Chemical Composition (maximum unless stated):

C	Si	Mn	P	S	Cr	Ni	Others	Fe
0.20	3.5	2.0	0.050	0.03	17.0-21.0	0.5	2.0-6.0	balance

Melting Temperature: 1425-1510°C

Critical Oxidation Temperature:

Cyclic Heating (in a refractory):	1600 °C
Continuous Service (in a refractory):	1200 °C
Cyclic Heating:	1100 °C

Tensile Strength:

20 °C	740 MPa
870 °C	63 MPa

Modulus of Elasticity (870°C): 90-100 GPa

Coefficient of Thermal Expansion (870°C): 12.1 @10⁻⁶ /°C

Thermal Conductivity (540°C): 24.6 W/m²K

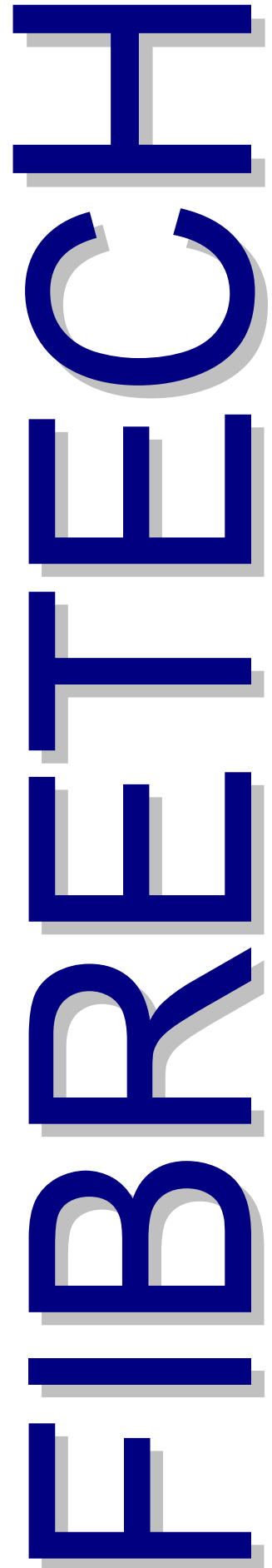
Available in the following sizes;

Fibre ^{*1} Length	Typical ^{*2} Equivalent Dia	Typical Aspect ^{*3} Ratio	Typical No/kg
6mm	0.18mm	33	839,000
12mm	0.34mm	35	118,000
20mm	0.47mm	43	37,000
25mm	0.50mm	50	26,000
35mm	0.64mm	56	12,000
50mm	0.83mm	60	5,000

^{*1} Other fibre lengths can be manufactured on request

^{*2} Other fibre diameters can be manufactured on request

^{*3} Aspect ratio is calculated as fibre length ÷ diameter



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