Technical Data Sheet

Fibrex HT™
Reinforcement for life

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 1600ºC*
- Continuous soaking to 1200ºC
- 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 (870ºC): 90-100 GPa

Coefficient of Thermal Expansion (870ºC): 12.1 @10^{-6} /ºC

Thermal Conductivity (540ºC): 24.6 W/m^2K

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

FIBRETECH

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