Fibrex HT Data Sheet

Fibrex HT Stainless Steel Fibres reinforce monolithic refractories against thermal and mechanical shock by reducing cracking and spalling susceptibility. Fibrex HT is a proprietary product researched and developed as an alternative to ME446 and ME430 steel fibres and performs best in refractory operating conditions of:

- Thermal cycling up to 1600°C*
- Continuous fibre soaking temperature up to 1200°C
- Extreme mechanical shock
- Oxidising, sulphur, reducing atmospheres

***Dependent on the insulation and porosity of the refractory**

Chemical Composition (maximum unless stated):

C	Si	Mn	P	S	Cr	Others
0.40	3.5	2.0	0.050	0.030	18.0-21.0	-

Melting Temperature: 1425-1510°C

Critical Oxidation Temperature:

Cyclic Heating (in refractory): 1600 °C

Cyclic Heating: 1100 °C

Continuous Service: 1200 °C

Tensile Strength:

20 °C 740 MPa

870 °C 63 MPa

Modulus of Elasticity (870°C): 90 GPa

Coefficient of Thermal Expansion (870°C): 12.1 x 10^{-6} /°C

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

ME Fibre – Typical Dimensions and Aspect Ratios

Fibre *1 Length	Typical Equivalent Dia*2	Typical Aspect *3 Ratio	Typical No/kg
12mm	0.30mm	40	151,000
20mm	0.40mm	50	51,000
25mm	0.50mm	50	26,000
25mm	0.60mm	42	18,100
35mm	0.60mm	58	13,000
35mm	0.70mm	50	9,500

*3 Aspect ratio is calculated as fibre length ÷ diameter
*1 Other fibre lengths can be manufactured on request
*2 Other fibre diameters can be manufactured on request

FIBRETECH

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