



FibreX 310 Data Sheet

FibreX310 Stainless Steel Fibres reinforce monolithic refractories against thermal and mechanical shock by reducing cracking and spalling susceptibility.

The fibres can be used in refractory operating conditions of:

- High thermal cycling, or
- Continuous fibre soaking temperature up to 1200°C in refractory
- High mechanical shock
- High temperature corrosive atmospheres

Chemical Composition (maximum unless stated):

C	Si	Mn	P	S	Cr	Ni	Others
0.50	3.5	2.0	0.050	0.030	24.0-26.0	19.0-22.0	-

Melting Temperature: 1400-1455°C

Critical Oxidation Temperature:

Cyclic Heating: 1040 °C

Continuous Service: 1200 °C

Tensile Strength:

20 °C 515 MPa

870 °C 152 MPa

Modulus of Elasticity (870°C): 125 GPa

Coefficient of Thermal Expansion (870°C): $18.5 \times 10^{-6} / ^\circ\text{C}$

Thermal Conductivity (540°C): 20.1 W/mK

ME Fibre – Typical Dimensions and Aspect Ratios

Fibre ^{*1} Length	Typical Equivalent Dia ^{*2}	Typical Aspect ^{*3} Ratio	Typical No/kg
12mm	0.34mm	40	151,000
20mm	0.47mm	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

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