

Data Sheet

ME310 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):

С	Si	Mn	Р	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 540 MPa

 $870~^{\circ}\text{C}$ 152 MPa

Modulus of Elasticity (870°C): 125 GPa

Coefficient of Thermal Expansion (870°C): 18.5 x 10⁻⁶ /°C

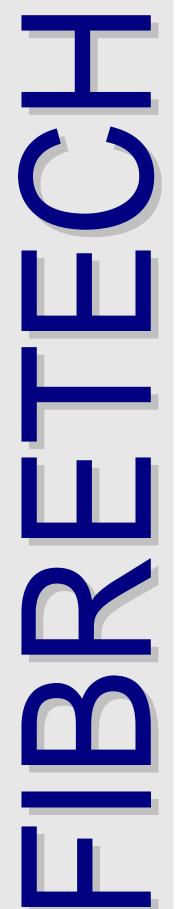
Thermal Conductivity (540°C): 20.1 W/mK

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