

Technical Data Sheet

ME 304

ME304 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:

- Moderate thermal cycling
- Continuous fibre soaking temperature up to 1100°C in the refractory
- Moderate mechanical shock
- High temperature corrosive atmospheres (sulphidation, chlorination etc)

Chemical Composition (%): maximum unless stated

C	Si	Mn	P	S	Cr	Ni	others
0.50	3.5	2.0	0.050	0.10	18.0-20.0	8.0-10.5	-

Melting Temperature: 1400-1455°C

Critical Oxidation Temperature:

Cyclic Heating: 870 °C

Continuous Service: 1100 °C

Tensile Strength (typical values):

20 °C 515 MPa

870 °C 124 MPa

Modulus of Elasticity (870°C): 124 GPa

Coefficient of Thermal Expansion (870°C): 20.2 @ 10⁻⁶ /°C

Thermal Conductivity (540°C): 21.5 W/m²K

ME Fibre – Typical Dimensions and Aspect Ratios

Fibre Length ^{*1}	Typical Equivalent Dia ^{*2}	Typical Aspect Ratio ^{*3}	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

