

ME446 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 2200 °F in the refractory
- Moderate mechanical shock
- High temperature oxidation resistance

Chemical Composition (%): maximum unless stated

C	Si	Mn	P	S	Cr	Ni	Others
0.40	3.5	2.0	0.050	0.10	23.0-27.0	0.5	-

Melting Temperature: 2600-2750 °F

Critical Oxidation Temperature:

Cyclic Heating: 1900 °F

Continuous Service: 2200 °F

Tensile Strength (typical values):

68°F 6800 psi
600 °F 77,000 psi

Modulus of Elasticity (1600°F): 14,000 ksi

Coefficient of Thermal Expansion (1600°F): 7.3x10⁻⁶ /°F

Thermal Conductivity (1000°F): 14.3 BTU/hr/ft/oF

ME Fibre – Typical Dimensions and Aspect Ratios

Fibre Strength* ¹	Typical Equivalent Dia* ²	Typical Aspect Ratio* ³	Typical No/lb
0.50 in	0.013 in	38	54,000
0.75 in	0.019 in	40	17,000
1.00 in	0.020 in	50	12,000
1.38 in	0.025 in	55	5,500



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*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

The data published in this datasheet is based on experimental test results and is presented in good faith but no guarantees are made implicitly or explicitly for the use of the above product in your specific application. We recommend you test the product to your satisfaction before committing to full-scale use. R/US/10/10