

Technical Data Sheet

ME 430

ME430 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, or
- Continuous fibre soaking temperature up to 1800 °F in the refractory
- Moderate mechanical shock
- Reasonable 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	14.0-18.0	0.5	-

Melting Temperature: 2700-2790°F

Critical Oxidation Temperature:

Cyclic Heating: 1350 °F

Continuous Service: 1600 °F

Tensile Strength (typical values):

(1600°F): 6800 psi

Modulus of Elasticity (1600°F): 12,000 ksi

Coefficient of Thermal Expansion (1600°F): 7.6×10^{-6} /°F

Thermal Conductivity (1000°F): 15.3 BTU/hr/ft/°F

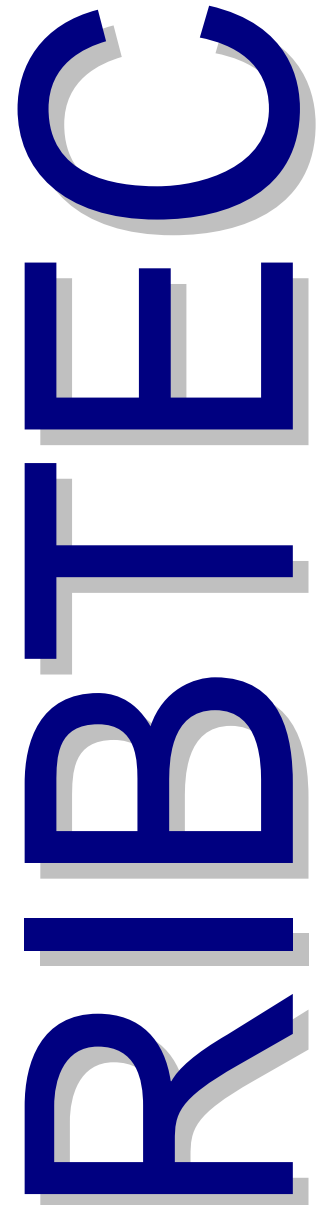
ME Fibre – Typical Dimensions and Aspect Ratios

Fibre ^{*1} Length	Typical Equivalent Dia ^{*2}	Typical Aspect ^{*3} Ratio	Typical No/lb
0.25 in	0.007 in	36	381,000
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
2.00 in	0.032 in	63	2,300

*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



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