RIBTEC

TECHNICAL DATA SHEET
FIBREX SF

Fibrex SF Stainless Steel Fibers reinforce monolithic refractories against thermal and mechanical shock by reducing cracking and spalling susceptibility.

The fibers can be used in refractory operating conditions of:

- High thermal cycling, or continuous fiber soaking temperature up to 1830 ºF 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	4.5	2.0	0.050	0.030	12.0 -14.0	-	-

Melting Temperature: 2696 - 2786 °F

Critical Oxidation Temperature:

Cyclic Heating: 1500 °F
Continuous Service: 1740 °F

Tensile Strength (typical values):

68ºF 83,670 psi
600 ºF 39,160 psi

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Modulus of Elasticity (68 ºF): 29,000 ksi

Coefficient of Thermal Expansion (930 ºF): 6.4×10^{-6}/ºF

Thermal Conductivity (930 ºF): 16.6 BTU/hr/ft/oF

ME Fiber – Typical Dimensions and Aspect Ratios

Fiber Length*1	Typical Equivalent Dia*2	Typical Aspect Ratio*3	Typical No/lb
0.50 in	0.016 in	31	36,000
0.75 in	0.020 in	38	15,500
1.00 in	0.020 in	50	12,000
1.375 in	0.020 in	69	8,400

*1 Other fiber lengths can be manufactured on request
*2 Other fiber diameters can be manufactured on request
*3 Aspect ratio is calculated as fibre length ÷ diameter