

FIBREX CD Stainless Steel Fibres are made from cut wire and can be used to reinforce some monolithic refractories used by the petrochemical industry. They help protect against thermal and mechanical shock by reducing cracking and spalling susceptibility. They can be supplied in various lengths and in different crimped forms to improve anchoring in the refractory. The fibres can be used in refractory operating conditions of:

- Moderate thermal cycling, or
- Continuous fibre soaking temperature up to 950°C in refractory
- Moderate mechanical shock
- High temperature corrosive atmospheres (sulphidation, chlorination etc)

Chemical Composition (maximum unless stated):

C	Si	Mn	P	S	Cr	Ni	others
0.08	1.0	2.0	0.045	0.030	18.0-20.0	8.0-10.5	-

Melting Temperature: 1405-1488°C

Critical Oxidation Temperature:

Cyclic Heating: 850 °C

Continuous Service: 950 °C

Tensile Strength:

20 °C 1000 MPa

870 °C 105 MPa

Modulus of Elasticity (870°C): 120 GPa

Coefficient of Thermal Expansion (870°C): 19.5 @10⁻⁶ /°C

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

Fibrex CD Fibre – Typical Dimensions and Aspect Ratios

Fibre Length ^{*1}	Typical Equivalent Dia ^{*2}	Typical Aspect Ratio ^{*3}	Typical No/kg
20mm	0.40mm	50	51,000
25mm	0.40mm	63	41,000
25mm	0.50mm	50	26,000
30mm	0.50mm	60	22,000
35mm	0.50mm	70	18,500

^{*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

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