

FibreX DS is a newly-developed fibre that combines high strength and far superior corrosion resistance compared with 304 and 316 type stainless steels. The ME surface texture helps the product bond well with the concrete and is easy to mix and disperse.

The special duplex chemistry imparts an excellent combination of corrosion resistance, strength and ductility to guarantee performance in onerous sea water and other highly corrosive environments. The special duplex (austenitic-ferritic) structure steel contains about 40-50% ferrite and has been a practical solution to prevent many types of corrosion.

Applications include tunnelling, bridge construction, sea defences, offshore and industrial effluent containers.

The fibres conform to the requirements for fibres used in concrete as described in BS EN14889-1 Group III and ASTM A820-11 type III.

### Chemical Composition (maximum unless stated):

C	Si	Mn	P	S	Cr	Mo	Ni	Others
0.40	3.5	2.0	0.030	0.030	21.0-23.0	2.5-3.5	4.5-6.5	0.2

**Melting Temperature:** 1420°C

### Corrosion Properties:

PREn (Pitting Resistance Equivalent Number)	36
CPT (Critical Pitting Temperature)	47.5°C

### Typical Tensile Properties:

Tensile Strength	800 MPa
Yield Strength	450 MPa
Elongation	30 %

**Modulus of Elasticity (20°C):** 200 GPa

**Coefficient of Thermal Expansion (100°C):** 13.7 @10<sup>-6</sup> /°C

**Thermal Conductivity (100°C):** 19 W/mK

### ME Fibre – Typical Dimensions and Aspect Ratios

Fibre <sup>*1</sup> Length	Typical Equivalent Dia <sup>*2</sup>	Typical Aspect <sup>*3</sup> Ratio	Typical No/kg
20mm	0.40mm	50	51,000
25mm	0.50mm	50	26,000
35mm	0.60mm	58	13,000

<sup>\*3</sup> Aspect ratio is calculated as fibre length ÷ diameter

<sup>\*1</sup> Other fibre lengths can be manufactured on request

<sup>\*2</sup> Other fibre diameters can be manufactured on request

FIBREX DS

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