

# **Hook-End Steel Fibres**

# Description

Hook-End steel fibres are additive materials used to enhance the strength of the refractory concretes operating mechanically hard conditions.

#### Features

#### • High tensile strength

Made of rolled steel wire, the hook-end fibres have higher tensile strength compared to the melt extracted fibres.

# Excellent locking property with the refractory

Hook type fibres have twists at their ends to ensure locking with the refractory. And this property allows the product to have locking capacity four times than the melt extracted type fibres.

### Homogenous distribution along the refractory

Due to its smooth surface characteristics, it does not aggregate and thus provides homogenous distribution along the matrix, resulting in the increased service life of the refractory.

### Oxidation resistant

Less oxidation occurs in its body compared to the melt extracted type fibres.



#### Method of Use

When the refractory mixes with the water, the product is added at a rate of 2-4% by weight (2-4 kg per 100 kg refractory concrete) to make the material ready to apply.

## Applications

- Iron-steel industry: Injection lances, arches, beams, nozzles, covers, grooves, crucibles and tundish applications.
- Nonferrous industry: Roofs and side-wall upper parts of the melting furnaces.
- Ceramic industry: Kiln cars.
- Petrochemical industry: Fluid catalytic cracking units, ducts, rollers, burners and chimneys.
- Cement industry: Nose part of the rotary furnace and burner covers.
- Power plants: Ash-retaining linings and steam boiler systems.

### **Standard Dimensions**

Hook-End Steel Fibre		
Alloy Type (AISI)	Length (mm)	Diameter (mm)
304	24	0,4
	30	0,4
310	25	0,4
	30	0,4
Low Carbon	30	0,5

#### Tensile Strength (N/mm<sup>2</sup>) 1600 А 1400 Cold Face A: Hook-End Steel Fibre 1200-Temperature B: Melt Extracted Fibre 1000 800 В 600 Hot Face Temperature 400-200-0 100 200 300 400 500 600 700 800 900 Ambient Temperature (°C) Hook-End Steel Fibre Versus Melt Extracted Fibre Tensile Strength Comparison Graphic