

**Material Technical Data Sheet for S-Crete Polyester Synthetic Fibres**

**Date of issue 22.10.2008**

**CAZEDEN S-Crete POLYESTER Staple Fibre**

**FIBRE  
PLASTCON**

**1. Product and Supplier Information**

**1.1 Fibre Product - Properties**

- 1.1.1 Appearance: White or colored (on request) staple fibre
- 1.1.2 Fibre Type: Polyester (PES) T290 3.6 Dtex 6 and 12 mm Virgin (SD/IN) or Recycled (RC, on request)
- 1.1.3 Chemical Name: Polyethylene terephthalate
- 1.1.4 CAS-No.: 25 038-59-9
- 1.1.5 Description : Thermoplastic fibre, Round and uncrimped
- 1.1.6 Fibre Diameter : 18  $\mu$ m
- 1.1.7 Fibre count per gram : 231.400 for 12mm fibre and 462.800 for 6mm fibre
- 1.1.8 Specific density : 1.34 – 1.4
- 1.1.9 Melting point : 254  $^{\circ}$ C
- 1.1.10 Auto Ignition Temperature : 515  $^{\circ}$ C – C DIN 51794
- 1.1.11 Physical state : Solid
- 1.1.12 Moisture regain : 0.5%
- 1.1.13 Solubility in water : Not soluble
- 1.1.14 Solvents : None
- 1.1.15 Tenacity at break : 45 cN/Tex (+/- 5)
- 1.1.16 Elongation at break : 40 % (+/- 5)
- 1.1.17 Fibre tenacity at 10% elongation : > 10 cN/Tex
- 1.1.18 Packaging : 300, 600 or 900 gms of fibre per water soluble paper bag, contained in 30 Kgs boxes

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## **2. Typical fibre use in Concrete / cementitious applications**

- 2.1 Foundations
- 2.2 Floor slabs
- 2.3 Floor and roof tiles
- 2.4 Roads and Pavements
- 2.5 Shot Crete
- 2.6 Man-hole covers, Tanks
- 2.7 Concrete ornaments
- 2.8 Precast slabs
- 2.9 Hollow concrete blocks
- 2.10 Plastering

## **3. Advantages of using Cazedan S-Crete**

- 3.1 Helps reducing cracks in concrete formed during plastic and hardening stages
- 3.2 Reduces water seepages thus helping to prevent walls from dampening as well as helping to avoid corrosion in steel used in concrete
- 3.3 Helps reducing cracks and time taken for plastering

**Caution: The addition of Cazedan S-Crete fibres helps to effectively limit plastic shrinkage and reduce cracks normally formed during dry shrinkage of concrete as well as improving other properties of the same. It must not, however, be used as a replacement for structural or load bearing reinforcement materials.**

## **4. Cazedan S-Crete dosage rate and directions for use**

- 4.1 **Dosage** : 600 gms to 1500 gms per m<sup>3</sup> (depending on Engineer's specifications) or approximately 0.2% by volume). For smaller mixes, use approximately 125 gms per pocket of cement used.

### 4.2 Directions for use :

**Transit mixer** : Simply add S-Crete fibre bag in to revolving truck mixer, according to dosing recommendations, on top of concrete matrix;

**Mixer** : Sprinkle S-Crete fibres in the rotating mixer on top of sand and stone. Allow Dry aggregates to mix for 30 seconds, add cement, balance with water and allow to Rotate as usual;

**Manual mixing**: For best results, sprinkle fibres over dry aggregates (sand / stone) and manually mix as usual, add cement and mix once more before adding water;

**Note: For plastering applications, we recommend our 6 mm fibre whereas all other applications are best suited with our 12 mm fibre as used in our testing.**