Macrosol F Structural Synthetic Fibres

TECHNICAL DATA SHEET CF 50/40 SS

Macrosol – Polypropylene fibres for concrete and mortar reinforcement

1. General

1.1 Description:

Macrosol fibres are extruded from a natural virgin Polypropylene homo polymer, formed into a Corrugated profile for concrete and mortar reinforcement and other composite materials

1.2 Qualities

Standard quality

- Polypropylene compound

1.3 Coatings (If Applicable)

1.4 Concept and terms

L : the nominal length in mm,
de : the nominal diameter in mm,
Factor λ : the length-to-diameter ratio (*L/d*). This parameter is important to the properties of the concrete or mortar for which Microsol fibres are used.

2. Explanation of used symbols

○	Form of delivery:	C	= Collated
		L	= Loose
○	Shape of fibre:	F	= Flat Corrugated Shaped anchorage
○	Performance class:		is approximately the (*L/d*) = 50
○	Length of the fibre:		indicative length of the fibre in mm = 40 mm
○	Fibre Type:	S	= Structural Synthetic fibre

2.1 No of fibres per kg

Approximately 43 000 per kg (calculated)

3. Properties based on ASTM Requirements

3.1 Nominal fibre diameter (*d*): See table 1

Table 1: Nominal fibre diameter (*d*) and tolerance

de – 0.9 mm

3.2 Nominal length (*L*): See table 2

Table 2: Nominal length (*L*) and tolerance

L – 40 mm

3.3 Tensile strength (*R/m*): See table 3

Table 3: Tensile strength (*R/m*) – N/mm²

N – 400 N/mm²

3.4 Factor λ (Aspect Ratio):

L/d – 40 mm/.9 = 50

3.5 Melting point (°C)

150°C to 170°C

3.6 Fibre density (g/cm³)

0.91

3.7 Colour

Translucent or Grey

3.8 Elongation at yield (%)

Between 15 and 25%