



## TECHNICAL DATA SHEET

### Chopped carbon fibre strands 6 mm

updated : July 2022

Mixture **of all origins** carbon and graphite ex-PAN fibres, obtained from spools of pure carbon fibres, cut for the widest range of short fibres applications. Its original sizing, which can vary, is generally compatible with the widest range of thermoplastic and thermosetting matrixes (polymers and elastomers), also: rubbers, papers, concretes, paints etc... Its compatibility needs to be checked on each new batch and for each new application.

#### PROPERTIES AVERAGE VALUES (*minimum values*)

*Chemical and physical properties are unchanged.*

Carbon fibres content*	100 % ( <i>99 %</i> )
from which ex-PAN fibres*	100 % ( <i>99 %</i> )
Carbon content*	94 % ( <i>&gt; 92 %</i> )
Sizing level*	1.4 % ± 0.6
Density (continuous fibre)*	1.7 < d < 2.0
Monofilament diameter*	7 µm ± 2
Volume resistivity*	15 µΩm (20 maxi)
average volume resistivity of n (n > 1000) monofilaments.	
Tensile strength*	3500 MPa ( <i>2950</i> )
Elongation at break*	1.5 % ( <i>1.2</i> )
Young's modulus (tensile)*	230 GPa ( <i>160</i> )
Mean length	<u>6mm ± 0.6</u>
Mass distribution	<u>90% ± 6</u>
Metal contamination**	< 0.05 g / 1000 g

The properties underlined in blue are values measured by the company.

\*Average values obtained from technical data sheets of producers of ex-PAN "high strength" fibres that we use in our mixture for more than 90%. The ≤10% remaining are "high modulus" fibres from same various producers: TORAYCA, TOHO-TENAX, CYTEC....

All these values, in the same way for length, distribution, bulk density, metal contamination, are given as a rough guide.

\*\*All our cut fibres are checked through an X-rays control that permits the elimination of particles from 1 mm<sup>3</sup> (Pb, Cu) to 6 mm<sup>3</sup> (Al) depending on metal density ; aluminium chips or sheets, even of several cm<sup>2</sup>, can't be detected.

**Health and Safety:** Carbon fibres are not dangerous for health. However, as short fibres and dusts, they cause irritation on skin, eyes, respiratory tract; the sizing sometimes causes allergies. People will have to wear dust protections like face masks, light overalls, glasses, gloves.

#### WARNING ! CARBON FIBRES CONDUCT ELECTRICITY.

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