

# CF.OS.I–6mm cut carbon fibers

# TECHNICAL DATA SHEET

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– **CF.OS.–6mm** : mixture of **all origins** carbon and graphite ex–PAN fibers, obtained from spools of pure carbon fibers, cut for the widest range of short fibers applications. A special sizing has been added in order to enhance the compatibility with the applied matrix. The sizing can be custom made to suit your application or specific matrix. **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 fibers content*	100 % (100 %)
from which ex–PAN fibers*	100 % (100 %)
Carbon content*	94 % (> 92 %)
Original Sizing level*	1.4 % ± 0.6
Density (continuous fiber)*	1.7 < d < 2.0
Mono filament diameter*	7 µm ± 2
Volume resistivity* average volume resistivity for n monofilaments (n > 1000)	15 µΩm (20 maxi)

Sizing Type	High Temperature Compatible Sizing
Oversizing Level	3.3 % ± 1.0
Mean length	6 mm ± 0.5
Mass distribution	90 % ± 5
Bulk density	0.5 kg/dm3 ± 0.05
Metal contamination**	< 0.05 g / 1000 g
Recommended Matrix	Polyamides, PC, PPS, PEI, PI, PEEK, thermoset resins

\*Average values excerpt from the technical data sheets of the ex–PAN “high strength” fibers that we use in our mixture for more than 90%. The ≤10% remaining are “high modulus” fibers from same various producers. All these values, in the same way for length, distribution, bulk density, metal contamination, **are given as a rough guide and do not in any way engage APPLY CARBON's responsibility.**

\*\*All our cut fibers are controlled through an X–rays control that permits to eliminate 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 fibers are not dangerous for health. However, as short fibers and dusts, they cause irritation on skin, eyes, tract; the sizing sometimes causes allergies. People will have to wear dust protections as face masks, light overalls, glasses, gloves. Carbon fibers are **electricity conducting materials.**