

CF.OS.I–6mm cut carbon fibers

TECHNICAL DATA SHEET

mise à jour/up dated : **July 2015**

– **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) |

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|-----------------------|---|
| 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 mm³ (Pb, Cu) to 6 mm³ (Al) depending on metal density ; aluminium chips or sheets, even of several cm², 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.**