

# CF.OS.A–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.**

| <b>PROPERTIES</b> AVERAGE VALUES ( <i>minimum values</i> )<br><i>Chemical and physical properties are unchanged.</i> |  |
|--|--|
| 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*<br>average volume resistivity for n monofilaments<br>(n > 1000)                                  | 15 µΩm (20 maxi)                         |
| Sizing Type  | Polyamide based                          |
| Oversizing Level   | 3.3 % ± 1.0                              |
| Mean length  | 6 mm ± 0.5                               |
| Mass distribution  | 90 % ± 5                                 |
| Bulk density   | 0.44 kg/dm <sup>3</sup> ± 0.05           |
| Metal contamination**  | < 0.05 g / 1000 g                        |
| Recommended Matrix   | PA6, PA66, PAA, PPA, PET, PBT, PPS, PMMA |

\*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.**