

Article : **Carbon Fiber Granulate 300 PU**

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 (<i>Minimum values</i>): | | |
|--|--|------------------------|
| <i>Chemical and physical properties are unchanged, excepted for those underlined in gray which are measured values</i> | | |
| Carbon fiber content* | | 100% (99%) |
| <i>from which ex-PAN-fibers</i> | | 100% (99%) |
| Carbon content* | | 94% (>92%) |
| Original sizing level* | | 1,4% +/- 0,6 |
| Density (continuous fiber)* | | 1,7 < d < 2,0 |
| Mono filament diameter* | | 7µm +/- 2 |
| Volume resistivity* | | 15 µΩm (20 maxi) |
| <i>average volume resistivity for n monofilaments (n > 1000)</i> | | |
| Stress to rupture* | | 3500 MPa (3000) |
| Strain to rupture* | | 2,1% (1,8) |
| Young Modulus (Stiffness)* | | 230 GPa (200) |
| Median length (fiber) | | 300µm +/- 40 |
| >90µm (fiber's mass distribution) | | 85% +/- 10 |
| Moisture (granulate) | | 0,2 – 0,8% |
| Bulk density (granulate) | | 135 g/L +/- 25 |
| Binder Type | | Polyurethane based |
| Binder Level | | 4% +/- 1,0 |
| Metal contamination** | | <0,5g / 1000 g |
| Recommended matrix | | PA, PBT, PET, PLA |

*Average values obtained from technical data sheets of the es-PAN high strength fibers which are used in the mixtures for more than 90%. The <10% remaining are high modulus fibers from various producers. All these values, in the same way for length, distribution, bulk density, metal contamination, are only given as a rough guide.

** All our milled fibers are purified through powerful magnet separators. Although very rare, some metal particles remain possible. An X-ray check permits the elimination of particles from 1mm³ (Pb, Cu, Fe) to 5mm³ (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 dust 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 FIBERS CONDUCT ELECTRICITY

Information contained in this data sheet is up-to-date and correct as at the date of issue. As we can't control or anticipate the conditions under which this product may be used, each user should review the information in specific context of the planned use. We will not be responsible for damages of any nature resulting from the use or reliance upon the information contained in this data sheet.