

## CF-6mm (cut carbon fibers)

CF-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. 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 carbon fibers: Average values (*minimum values*)

Carbon fibers content*	100%, ( <i>100%</i> )
Carbon content*	94% ( <i>&gt; 92%</i> )
Sizing level*	1,4% +/- 0,6
Density (Continuous fiber)*	1,7 <d < 2,0 g/cm <sup>3</sup>
Mono filament diameter*	7 µm +/-2
Tensile strength*	3500 MPa ( <i>3000 MPa</i> )
Elongation at break*	1,5% ( <i>1,2%</i> )
Young's modulus (Tensile)*	230 GPa ( <i>200 GPa</i> )

### Properties short carbon fibers 6mm

Mean length	6mm +/-0,5
Bulk density	0,5 kg/dm <sup>3</sup> +/- 0,06
Metal contamination**	<0,05 g / 1000 g

\*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 : TORAYCA, TOHO-TENAX, HEXCEL, CYTEC.... All these values, in the same way for length, bulk density, metal contamination, are given as a rough guide and do not in any way engage Haufler Composite'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.

*Die in unseren technischen Unterlagen gemachten Angaben sind praxisbezogen und zuverlässig, befreien unsere Kunden jedoch nicht von der eigenen Prüfung unserer Produkte im Hinblick auf ihre Eignung für die beabsichtigten Verfahren und Einsatzzwecke.*