

## TECHNICAL DATA SHEET – RECYCLED CARBON FIBERS

**Commercial name:** rCF - 3

**Details material:** Pure raw carbon fibers recovered in pyrolysis process from wind turbine blades.

**Manufacturer:** P. W. Anmet Andrzej Adamcio

**Reprocessing method:** Fibers are recovered from worn blades of wind turbines. The wings are cut into smaller pieces. Then it undergoes heat treatment without oxygen (pyrolysis) - After they are wounded.

**Main designation:** Thermoplastics, thermosets, gasket materials, Imparts electrical and thermal conductivity, increased strength, modulus and dimensional stability, carbon thread or textile, nonwovens.

### **Advantages:**

- \*Flexible, can be wrapped around complex, geometric structures
- \*High strength
- \*Light weight
- \*Non-corrosive
- \*Alkali resistant
- \*Low aesthetic impact
- \*Good electric and thermal conductivity

### **Health and safety:**

Carbon fiber products do not require hazardous product labelling. Carbon fiber products are not considered as hazardous goods by transport regulations. They are not part of the hazardous classification listed in the international regulations.

### **Properties (guideline):**

#### **Fiber**

Lengths	(m)	to 3*
Filament diameter	( $\mu\text{m}$ )	7
Density	( $\text{g}/\text{cm}^3$ )	1,70
Sizing amount	(%)	1-3

#### **Mechanical data**

Tensile strength	(Mpa)	3000
Tensile modulus	(Gpa)	150
Specific heat capacity	(J/kgK)	700
Heat coefficient	(W/mK)	9
Thermal expansion coefficient	(10 <sup>-6</sup> /K)	-0,1
Specific electrical resistance	( $\Omega \text{ cm}$ )	$1,5 \times 10^{-3}$

*\* For individual order we can prepare longer fibers.*