



Technical Data Sheet

FILAMENT-Eco Fiber

FILAMENT-Eco Fiber is an easily printable filament with a high content of recycled carbon fibers. The carbon fibers provide superior mechanical properties to the printed samples

Filament features

Particle	Carbon fibers
Polymeric matrix	PLA
Particle loading (wt./vol.%)	21 wt.%/ 15 vol.%
Diameter	1.75 ± 0.15 mm
Density	1.31 g/cm ³
Electrical conductivity	4.28E ⁻⁶ S/m
Linear Density	0.032 g/cm
Format	Spool vacuum packed

Thermal Properties

Glass Transition Temp.	62°C
Melting Temp.	152 °C
Degradation Temp.	350 °C

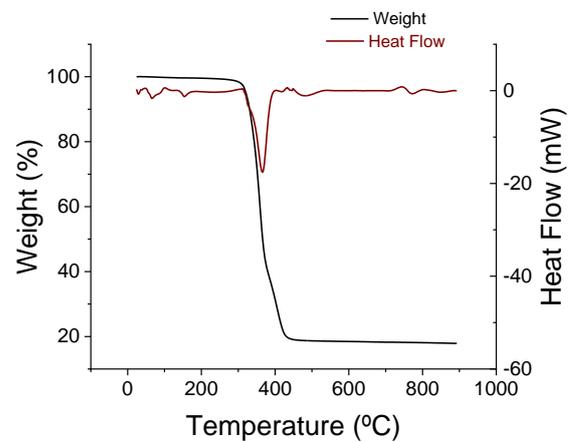
Printing Recommendations

Printing Temp.	155 - 185°C
Hot Pad	30 - 60°C
Printing Speed	20-40 mm/s
Layer Height	≥ 0.2 mm
Nozzle Diameter	≥ 0.4 mm
Head travel speed	<200 mm/s
Stand-by Temp.	30 °C

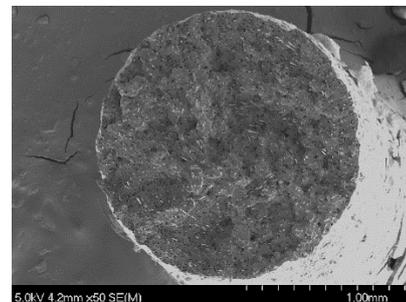
Storage Conditions

Keep in dry place
Protect from direct sunlight
Storage between 5°C- 30°C

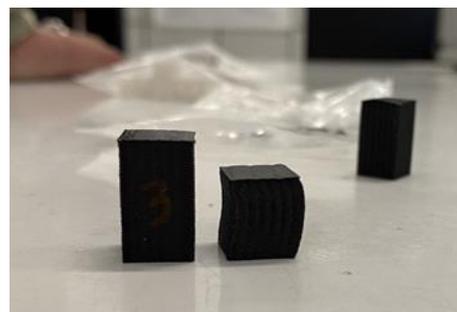
Thermal behavior



Filament cross-section



Samples printed and tested under compression with FILAMENT-Eco Fiber



Powder Specifications

Carbon Fibers

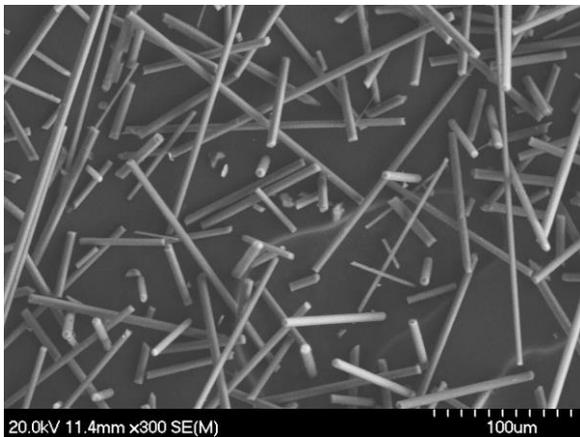
Identification Product

Commercial name	Recycled carbon fibers
Chemical formula	C
Supplier	Recycled
Characteristics/Description	Carbon Fibers

Chemical composition

Purity	> 99.8 %	X-ray Fluorescence
Density	1.86 g/cm ³	Helium picnometry
Spec. Surf. area	17.08 m ² /g	N ₂ adsorption-desorption

Particle morphology



Scanning electron microscope image

Particle size distribution

Carbon fibers with a high form factor: Length < 500 μm and Diameter < 10 μm

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