

PRODUCT INFORMATION

RADILON ADLINE CS CF10 HP BK

PROVISIONAL

DESCRIPTION

PA6/66 copolymer 10% carbon fibre reinforced for 3D Printing Fused Deposition Modelling.

Suitable for parts requiring stiffness, high dimensional stability and very reduced shrinkage. The material offers good surface aspect and easy processability.

ISO 1043: PA6/66-CF10

THE CHARACTERISTICS SHOWN HERE ARE PROVISIONAL AND REFLECT THE AVERAGE VALUES OF PROPERTIES MEASURED OVER A LIMITED NUMBER OF PRODUCTION CAMPAIGNS

REGIONAL AVAILABILITY: North America, Europe, Asia Pacific, South and Central America, Near East/Africa

MATERIAL HANDLING AND PROCESSING

The material is available in granules or in filament, and is delivered in moisture-proof, 6 month shelf-life packaging ready for processing. Availability of 1.75 mm and 2.85 mm diameter 3D printer filaments. It is advisable to print continuously up to a maximum of 3 days, after that period proceed with the proper desiccation procedure for the material. Maximum recommended water content for best processing is 0.15%. Typical conditions with a desiccant drier: temperature 80°C, dew point -20°C or below, time 2-4 h or more.

Recommended 3D-Print processing parameters:

Nozzle Temperature	Bed Temperature	Adhesion promoter	Print Speed
250°-280°C	70-100°C	Magigoo glue	30-40 mm/s

*Please note: Parameters are dependent on printer used.
Radici tests were performed on a Ultimaker S5 printer*

PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet
ROHS compliant 2011/65/EU and following amendments

TECHNICAL DATA SHEET

RADILON ADLINE CS CF10 HP BK

PROPERTY		STANDARD	UNIT	VALUE	
				DAM*	Cond**
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m ³	1160	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	9	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	2,6	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	3550 ^[1]	
Stress at Yield	50mm/min	ISO 527-2/1A	MPa	50	
Yield Strain		ISO 527-2/1A	%	3	
Stress at Break	5mm/min	ISO 527-2/1A	MPa	45	
Strain at Break	5mm/min	ISO 527-2/1A	%	25	
Flexural Modulus	2mm/min	ISO 178	MPa	3500 ^[2]	
Flexural Strength	2mm/min	ISO 178	MPa	60	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	60 ^[3]	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	195	

*: DAM = Dry As Moulded state according to ISO 16396-2 **: Cond = Conditioned state similar to ISO 1110 1:

Tensile properties measured on 3D printed XY / flat specimen with a filling print path at +/- 45°

2: Flexural properties measured on 3D printed XY / flat specimen with a filling print path at +/- 45°

3: Impact properties measured on 3D printed XY / flat specimen with a filling print path at +/- 45°