RADILON ADLINE CS

PROVISIONAL

DESCRIPTION

PA6/66 copolymer for 3D Printing Fused Deposition Modelling.

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

ISO 1043: PA6/66

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

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PROPERTY		STANDARD	UNIT	VALUE DAM*	VALUE Cond**
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m³	1100[1]	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	10,2	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	3	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	2005[2]	
Stress at Yield	50mm/min	ISO 527-2/1A	MPa	55	
Yield Strain		ISO 527-2/1A	%	4,5	
Nominal Strain at Break	50mm/min	ISO 527-2/1A	%	15	
Stress at Break	50mm/min	ISO 527-2/1A	MPa	50	
Flexural Modulus	2mm/min	ISO 178	MPa	1900[3]	
Flexural Strength	2mm/min	ISO 178	MPa	70	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m²	N	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m²	30[4]	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	195	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	45	
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C	50	

*: DAM = Dry As Moulded state according to ISO 16396-2 **: Cond = Conditioned state similar to ISO 1110 1:
2: Tensile properties measured on 3D printed XY / flat specimen with a filling print path at +/- 45°
3: Flexural properties measured on 3D printed XY / flat specimen with a filling print path at +/- 45°
4: Impact properties measured on 3D printed XY / flat specimen with a filling print path at +/- 45°