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

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

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

MATERIAL HANDLING AND PROCESSING

The material is available in granules or in filament – 1.75 mm and 2.85 mm diameter.
In the case of granules, the material is delivered in moisture-proof packaging ready for processing. Maximum recommended water content for best processing is 0.10%. Typical conditions with a desiccant drier: temperature 80 ° C, dew point -20 ° C or below, time 2-4 h or more. In the case of filaments, the material is originally sealed in vacuum bags with silica gel inside to keep environment in dry conditions. For best printing results, it is recommended to pre-dry the filament at 70-80°C for 2-4 h or more. Alternatively, Radilon® Adline filaments are compatible with Drywise system from Thought3D Ltd.

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	
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 [1]	
Stress at Yield	50mm/min	ISO 527-2/1A	MPa	55	
Yield Strain	50mm/min	ISO 527-2/1A	%	4.5	
Nominal Strain at Break	50mm/min	ISO 527-2/1A	%	15	
Flexural Modulus	2mm/min	ISO 178	MPa	1900 [2]	
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 [3]	
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: 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°