

ACRYLIC · Technical Data Sheet

General Features

Chemical Name Poly Methyl Methacrylate	Benefits <ul style="list-style-type: none"> • Very low coefficient of friction • Very hard and not very flexible, ideal for those pieces that require a lot of rigidity • Exceptional ability to print bridges • A semi-transparent material 	Applications Lamp housings and covers, threads, gears, very rigid parts.
--	---	--

Filament Characteristics

Diameter	Ø 1.75mm	Ø 2.85mm
Meters per spool	251m	98.94m
Weight per meter	2.98g	7.58g
Tolerance	±0.02mm	±0.03mm

Material Properties

		ISO Test Method	Test Condition	CM-207
Melt flow index	ml/10 min	1133	230°C x 3.8KG	8.5
Mass Density	g/cm ³	1183	23°C	1.19
Tensile Strength	MPa	527	50mm/min, yield	67
Tensile Elongation	%	527	50mm/min	8
Flexural Strength	MPa	178	2mm/min	97
Flexural Modulus	GPa	178	2mm/min	2.7
Izod Impact Strength	KJ/m ²	180/1A	23 °C Notched	2
	KJ/m ²		-30 °C Notched	N/N
Charpy Impact Strength	KJ/m ²	179	23 °C Notched	2
	KJ/m ²		-30 °C Notched	N/N
Vicat Softening Temp.	°C	306	1 Kg.50°C/hr	107
	°C		5 Kg.50°C/hr	99
Heat Distortion Temp.	°C	75/A	1.8 MPa Unannealed	89
	°C		1.8 MPa Annealed	100

Recommended printer settings

Print temperature	210±10°C
Print bed temperature	60° First/ Later
Cooling fans	Off / Very low
Closed environment	Not Required
Use adhesive	

Available Colours

Colour	Pantone Code
Natural	--

Disclaimer:

This TDS, based on current knowledge and experience, contains a general summary of hazards and is consistent with the information provided by the supplier. No liability can be assumed for the accuracy and completeness of this information. The information in this TDS applies for this specific material only. It therefore does not apply for its usage in combination with other materials or ways of processing. It is user's responsibility to read and understand this information and incorporate it into individual safety programs, according to all legal and regulatory applicable procedures. Smart International gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the user shall determine the quality and suitability of the product. Smart International expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.

