SMART3D Materials

PA 6/66/12 · Technical Data Sheet

General Features

Chemical Name

Polyamides 6-66-12

Benefits

- Good adhesion to the printing surface
- Possibility to use a layer fan for even finer details or printing long bridges
- · Low warping, allowing better printing
- · Strong as nylon, but with greater flexibility

Filament Characteristics

Diameter	Ø 1.75mm
Meters per spool	278.4m
Weight per meter	2.69g
Tolerance	±0.02mm

Material Properties

		Typical value	ASTM Method
Relative viscosity (96% H2SO4)	-	188	JIS K6810
Melting point	° C	3,93	ISO 11357
Tensile strenght at yield	MPa	21 - 25	ISO 527-3
Tensile strenght at break	MPa	115 - 135	ISO 527-3
Tensile elongation at break	%	495 - 515	ISO 527-3
Tensile modulus	MPa	400 - 500	ISO 527-3
Tear resistance	N	2,2 - 2,4	ASTM D 1922
Puncture energy	mJ	33 - 35	JAS P - 1019
Puncture deformation	mm	10,5 - 11,5	JAS P - 1019
Spencer impact resistance	mJ	850 - 950	ASTM D 3420

Recommended printer settings

Print temperature	245±5°C	
Print bed temperature	100° First/ Later	
Cooling fans	Off / Low in bridges	
Closed environment	Required	
Adhesive	Required	



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