BCN3D FILAMENTS

PP

Innofil3D PP is high performance thermoplastic with low density, high elasticity and a high resistance to fatigue. The mechanical properties of make it an ideal material for 3D-printing applications which have to endure high stress or strain.

PP is one the most used materials in the world due to its versatility and ability to engineer light weight tough parts. With this PP filament Innofil3D enables these solutions to be available professional 3D-printing. To provide users with valuable information we have collected data regarding the mechanical properties of the printed material according to the ISO standards.

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PP - *Technical information including:*

General Properties		Standard
Printed Part Density	900 kg/m3 / 56.2 lb/ft3	ISO 1183-1

Thermal Properties		Standard
Melting Temperature	141 °C / 286 °F	ISO 11357-3
Melt Volume Rate	7.4 cm3/10 min / 0.5 in3/10 min (230 °C, 2.16 kg)	ISO 1133

Mechanical Properties				
Print direction	***Standard***	***XY***	***XZ***	***ZX***
Tensile strength	ISO 527	11.9 MPa / 1.7 ksi	-	8.9 MPa / 1.3 ksi
Elongation at Break	ISO 527	>200 %	-	3.2 %
Young's Modulus	ISO 527	470 MPa / 68.2 ksi	-	554 MPa / 80.4 ksi
Flexural Strength	ISO 178	19.6 MPa / 2.8 ksi	24.5 MPa / 3.6 ksi	-
Flexural Modulus	ISO 178	1512 MPa / 219 ksi	2466 MPa / 358 ksi	-
Flexural Strain at Break	ISO 178	11.2 %	11.6 %	-
Impact Strength Charpy (unnotched)	ISO 179-2	61.0 kJ/m2	1.4 kJ/m2	-