Novamid®

Novamid® ID 1070

PA copolymer

3D printing grade

Print Date: 2019-10-25

The mechanical data is tested on printed tensile bars, printed in two directions: 0°-90° and 45°-45°

Properties	Typical Data	Unit	Test Method
Mechanical Properties (Injection Molded)	dry / cond		
Tensile modulus	2590 / 710	MPa	ISO 527-1/-2
Yield stress	77 / 40	MPa	ISO 527-1/-2
Yield strain	4.2 / 25.6	%	ISO 527-1/-2
Stress at break	46.5 / 47.5	MPa	ISO 527-1/-2
Strain at break	>50 / >50	%	ISO 527-1/-2
Flexural modulus	2680 / 740	MPa	ISO 178
Flexural strength	108 / 31.5	MPa	ISO 178
Charpy impact strength (+23°C)	N / -	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	N / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	5.3 / 51	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	2.4 / 3	kJ/m²	ISO 179/1eA
Thermal properties	dry / cond		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	54 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	104 / *	°C	ISO 75-1/-2
Other properties	dry / cond		
Water absorption	12 / *	%	Sim. to ISO 62
Humidity absorption	3.5 / *	%	Sim. to ISO 62
Density	1120 / -	kg/m³	ISO 1183

Property Data (Provisional)

Novamid® ID 1070

Print Date: 2019-10-25

Properties	Typical Data	Unit	Test Method
Material specific properties	Value		
Maximum tensile stress (3D printed tensile bars) 0°-90°	45	MPa	ISO 527-1/-2
Maximum tensile stress (3D printed tensile bars) 45°-45°	50	MPa	ISO 527-1/-2
Tensile modulus (3D printed tensile bars) 0°-90°	1710	MPa	ISO 527-1/-2
Tensile modulus (3D printed tensile bars) 45°-45°	2120	MPa	ISO 527-1/-2
Elongation at break (3D printed tensile bars) 0°-90°	7.2	%	ISO 527-1/-2
Elongation at break (3D printed tensile bars) 45°-45°	15	%	ISO 527-1/-2