

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/m ² | ISO 179/1eU |
| Charpy impact strength (-30°C) | N / - | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 5.3 / 51 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | 2.4 / 3 | kJ/m ² | 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/m ³ | ISO 1183 |

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| 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 |





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