

CAMPUS® Datasheet

Ultramid® 1503-2 BK ND3007 - PA66-GF33
BASF



Product Texts

Ultramid® 1503-2 BK ND3007 is a 33% glass reinforced, heat stabilized, pigmented black injection molding PA6/6.

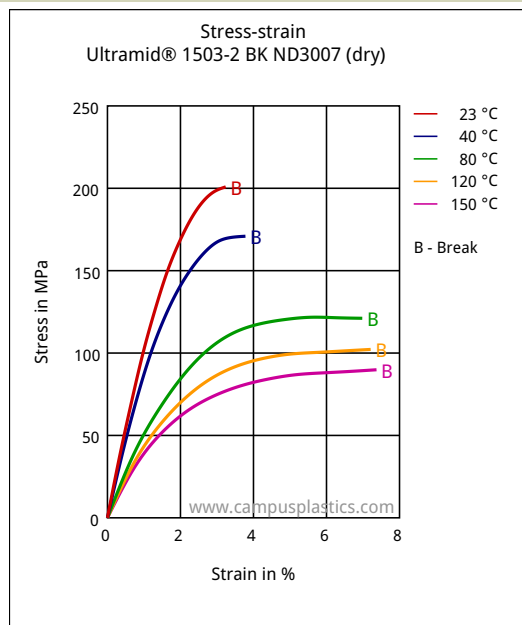
Mechanical properties	dry / cond	Unit	Test Standard
Tensile modulus	10800 / -	MPa	ISO 527-1/-2
Stress at break	190 / 144	MPa	ISO 527-1/-2
Strain at break	3 / 5	%	ISO 527-1/-2
Charpy notched impact strength, +23°C	11 / -	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	8 / -	kJ/m ²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, 10°C/min	257 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	255 / *	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	264 / *	°C	ISO 75-1/-2

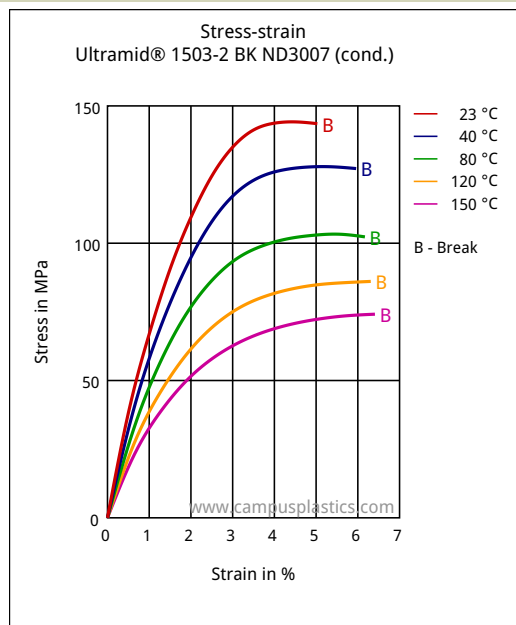
Other properties	dry / cond	Unit	Test Standard
Water absorption	5.7 / *	%	Sim. to ISO 62
Humidity absorption	1.7 / *	%	Sim. to ISO 62
Density	1400 / -	kg/m ³	ISO 1183

Diagrams

Stress-strain

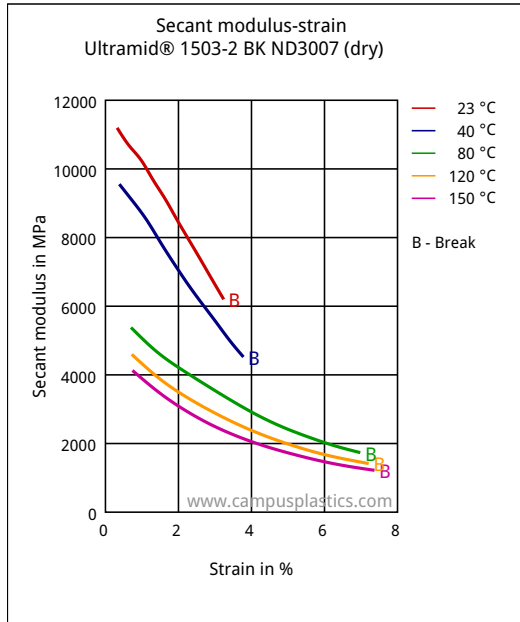


Stress-strain

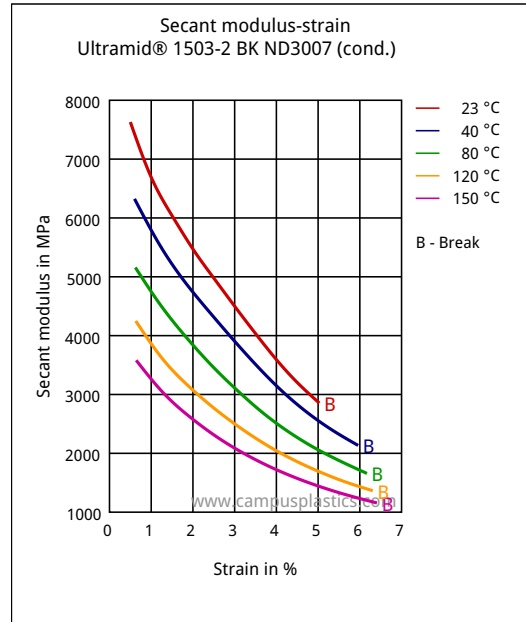


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Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Regional Availability

North America

Other text information

Injection molding

Polyamid 66 materials must be properly dried in order to provide parts with optimum strength and toughness. Polyamid 66 materials are hygroscopic and will become degraded by excessive moisture during the injection molding process. For unopened bag/box, dry at 140F (60°C) for 1-2 hours. For material exposed to the atmosphere, if additional drying is needed, dry at 150F (66°C) or until the moisture level is between 0.04 - 0.20%.

- Melt Temperature: 288 – 305°C (550 – 580F)
- Mold Temperature: 60 – 100°C (140 – 212F)
- Injection Pressure: 35 – 125 MPa (5000 – 18000 psi)
- Back Pressure: 0 – 0.35 MPa (0 – 50 psi)
- Screw RPM 40 – 80
- Screw Compression Ratio: 3:1 – 4:1

This product can be processed over a wide range of mold temperatures; however, for applications where aesthetics are critical, a mold surface temperature of 60-100°C (140-212F) is recommended.

Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

Fast fill rates are recommended to insure uniform melt delivery to the cavity and prevent premature freezing.

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