

Ultradid® B3WG6 BGVW BK00564
PA6-GF30

BASF

Glass fibre reinforced and heat ageing resistant injection moulding grade used e.g. for automobile manifolds

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	9600 / 5600	MPa	ISO 527
Stress at Break	180 / 90	MPa	ISO 527
Strain at Break	3 / 6	%	ISO 527
Impact Strength (Charpy), +23°C	80 / 80	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	65 / -	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	12 / 20	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	9 / -	kJ/m ²	ISO 179/1eA

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	205 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	218 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	18.4 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	96.4 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Electric Strength	40 / 31	kV/mm	IEC 60243-1

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	6.6 / *	%	Sim. to ISO 62
Humidity absorption	2.1 / *	%	Sim. to ISO 62
Density	1360 / -	kg/m ³	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	142 / *	cm ³ /g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

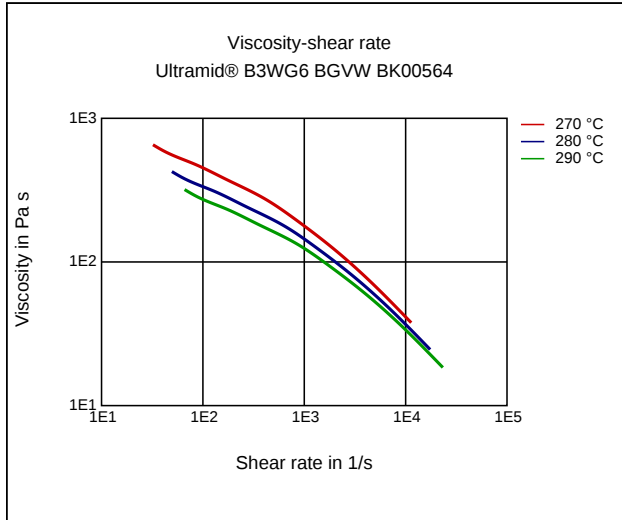
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.15	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 90	°C	-

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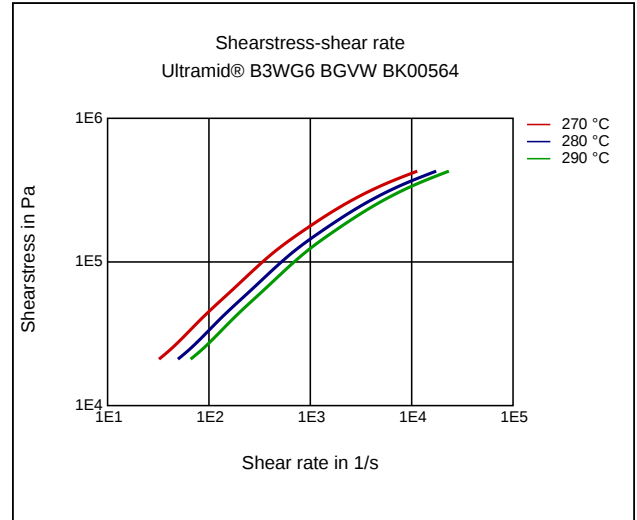
BASF

Diagrams

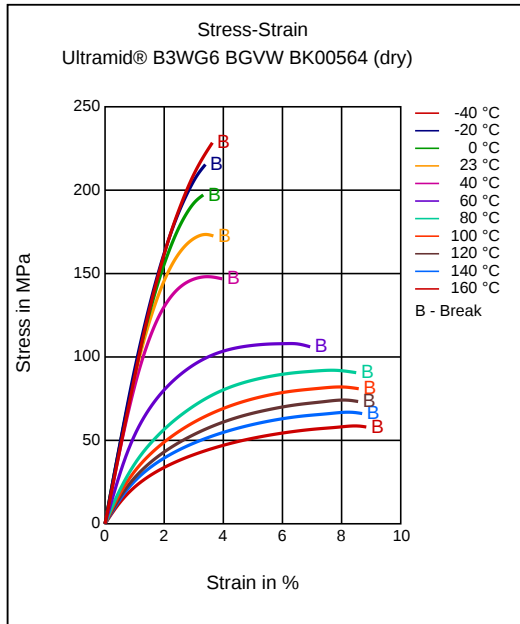
Viscosity-shear rate



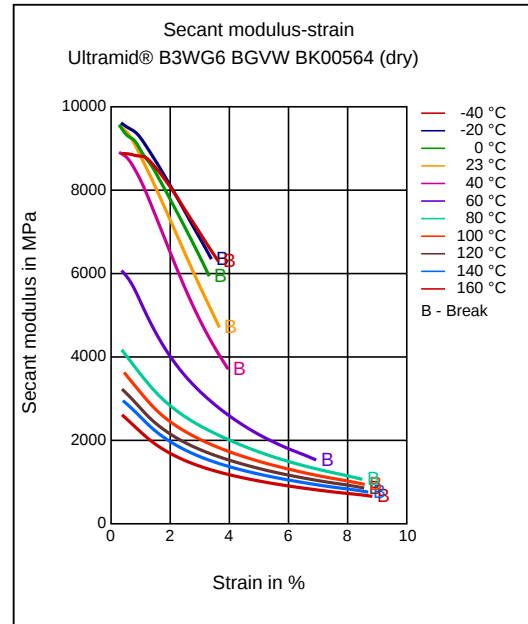
Shearstress-shear rate



Stress-strain



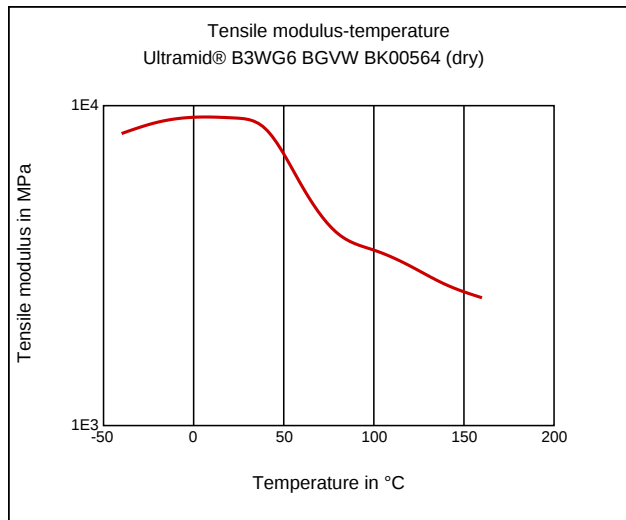
Secant modulus-strain



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Tensile Modulus-Temperature



Characteristics

Processing

Injection Molding

Delivery form

Black

Injection Molding

PREPROCESSING

Pre/Post-processing, max. allowed water content: .15 %

Pre/Post-processing, Pre-drying, Temperature: 80 °C

Pre/Post-processing, Pre-drying, Time: 4 h

PROCESSING

injection molding, Melt temperature, range: 270 - 290 °C

injection molding, Melt temperature, recommended: 280 °C

injection molding, Mold temperature, range: 80 - 90 °C

injection molding, Mold temperature, recommended: 80 °C

injection molding, Dwell time, thermoplastics: 10 min

Chemical Media Resistance

Acids

- ✓ Acetic Acid (5% by mass) (23 °C)