

Ultramid® B3Z8 R02

PA6-I

BASF

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	47 / *	cm³/10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	1.1 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.0 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	1040 / 355	MPa	ISO 527
Impact Strength (Charpy), +23°C	no break / no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break / no break	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	88 / no break	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	16 / 14	kJ/m²	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)	48 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	60 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	146 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	178 / *	E-6/K	ISO 11359-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3 / 3.2	-	IEC 62631-2-1
Dissipation Factor, 1MHz	0.0147 / 0.0566	E-4	IEC 62631-2-1
Volume Resistivity	1.1E12 / -	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 9E13	Ohm	IEC 62631-3-2
Comparative tracking index	- / 600	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	5.75 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1030 / -	kg/m³	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	129 / *	cm³/g	ISO 307, 1157, 1628

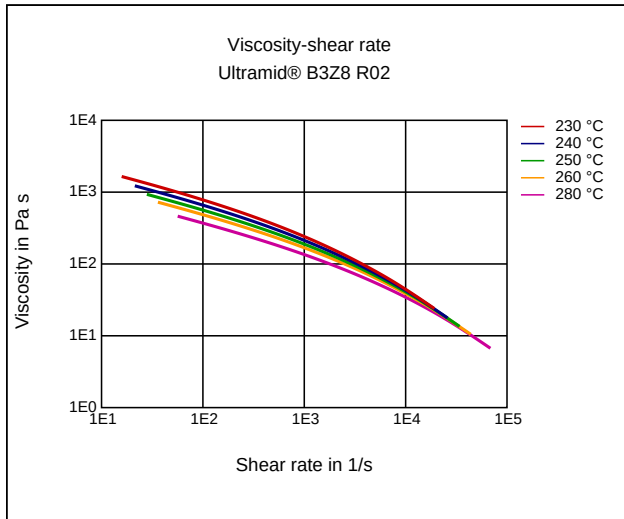
Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	40	°C	ISO 294

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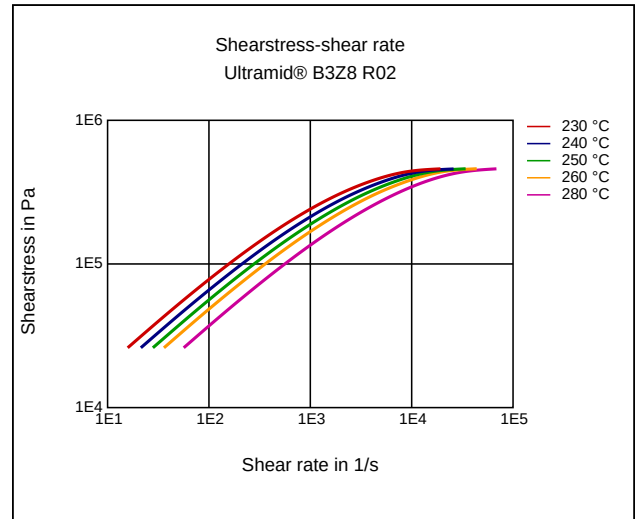
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Diagrams

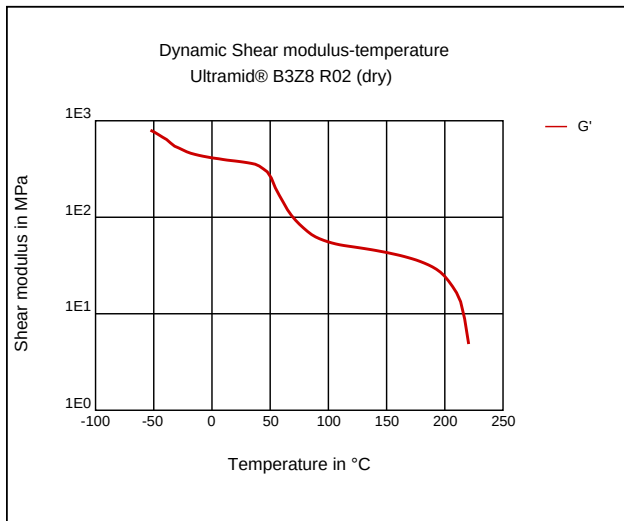
Viscosity-shear rate



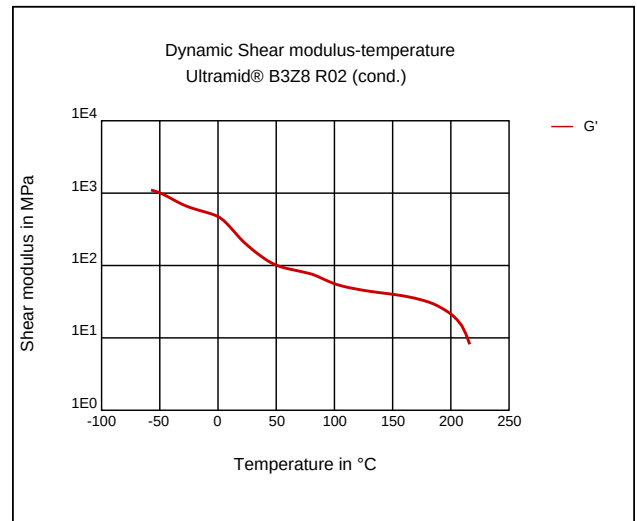
Shearstress-shear rate



Dynamic Shear modulus-temperature



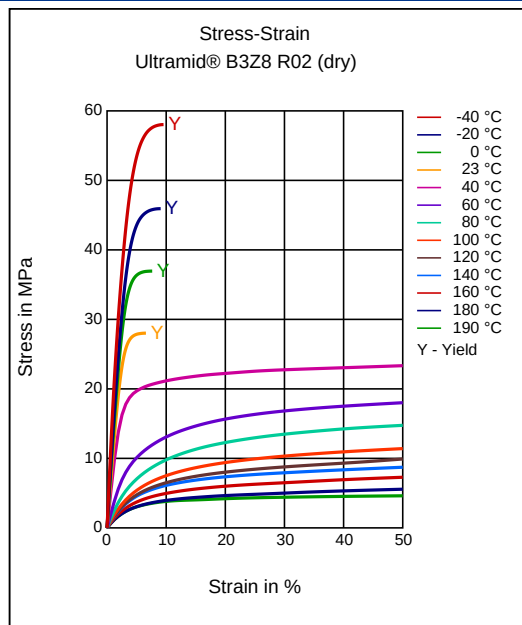
Dynamic Shear modulus-temperature



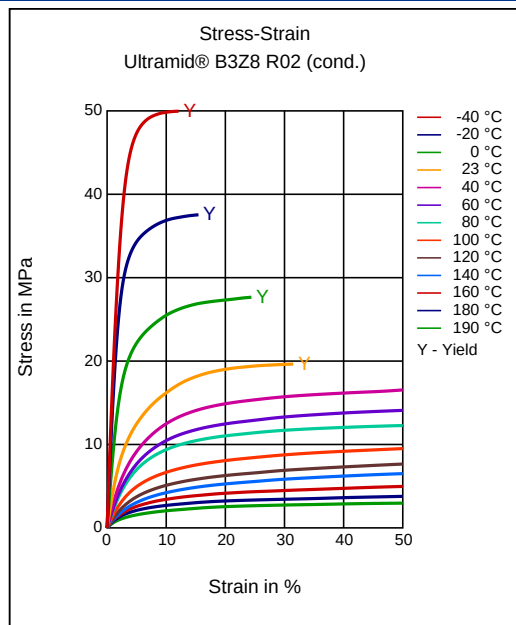
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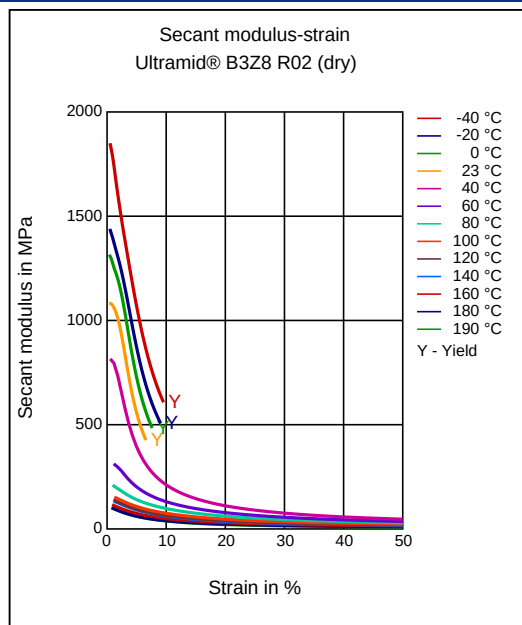
Stress-strain



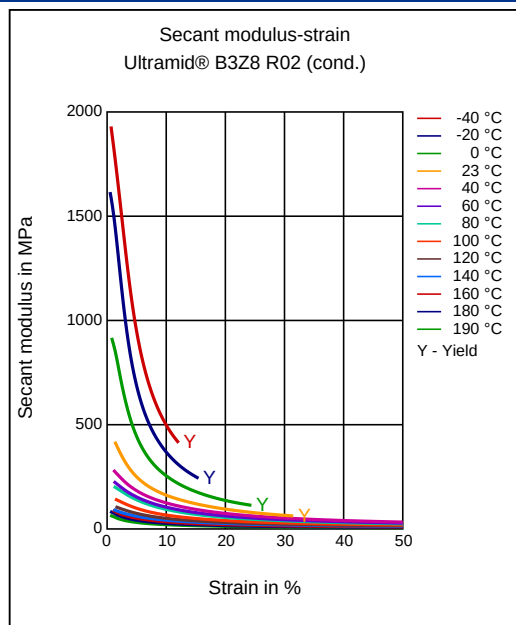
Stress-strain



Secant modulus-strain



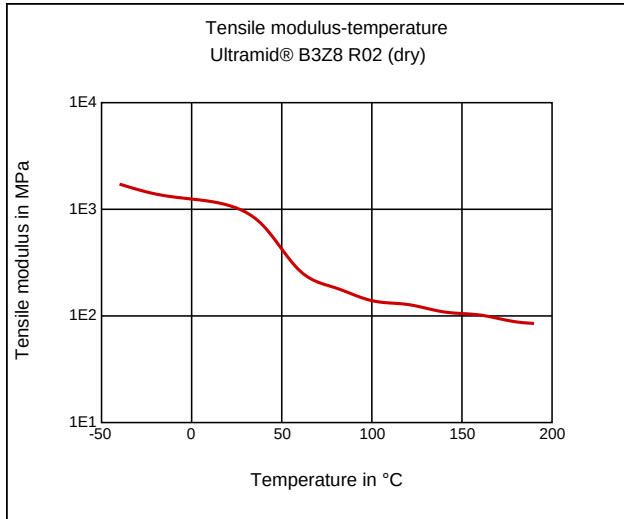
Secant modulus-strain



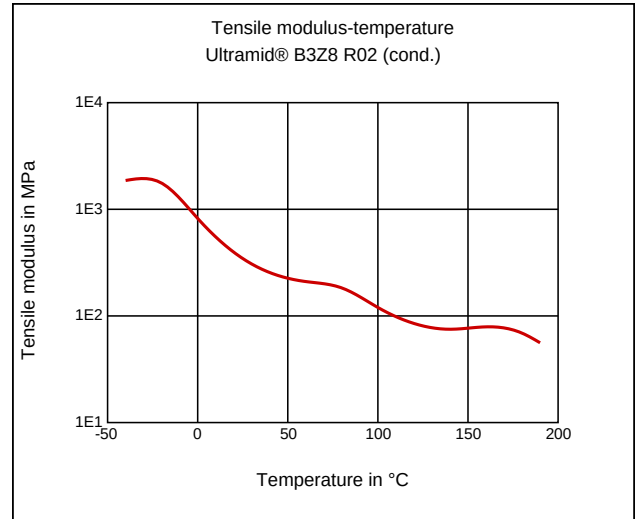
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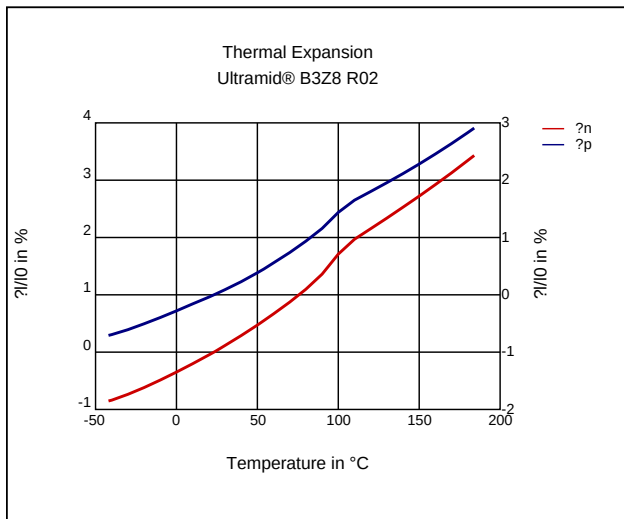
Tensile Modulus-Temperature



Tensile Modulus-Temperature



Coeff. of linear thermal expansion, normal



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Film Extrusion

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

Extrusion, Flat film, Melt temperature: 240 - 260 °C

Special Characteristics

Impact modified