

Ultramid® T7300EG8 LS BK23346

PA*-GF40

BASF

Glass-fiber reinforced, heat aging resistant and laser-markable injection molding grade based on semi-crystalline polyamides with partially aromatic content. The product can be characterized as compound with very high strength and stiffness even after moisture uptake.

Markets & applications

Automotive: structural parts, metal replacement, brake parts, interior, powertrain

E&E: electrical appliances, cell phones

Consumer goods: home appliances, consumer electronics, furniture fittings

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	10 / *	cm³/10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.6 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	13000 / 12300	MPa	ISO 527
Stress at Break	225 / 175	MPa	ISO 527
Strain at Break	3.1 / 3.1	%	ISO 527
Impact Strength (Charpy), +23°C	90 / 85	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	70 / 65	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	12 / 12	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	11 / 10	kJ/m²	ISO 179/1eA

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	255 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	235 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	255 / *	°C	ISO 75-1/-2

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1460 / -	kg/m³	ISO 1183

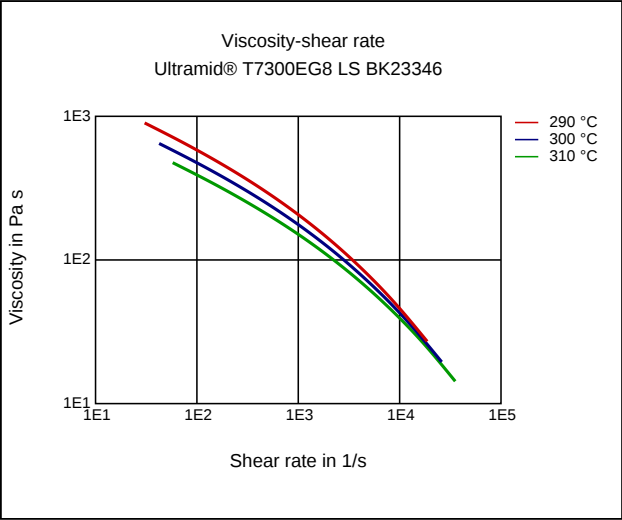
Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	133 / *	cm³/g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	300	°C	ISO 294
Injection Molding, mold temperature	100	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

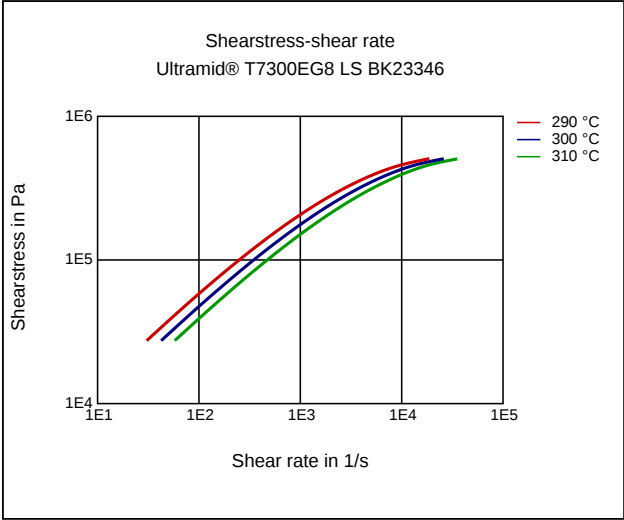
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110	°C	-
Pre-drying - Time	8	h	-
Processing humidity	≤0.15	%	-
Melt temperature	290 - 310	°C	-
Mold temperature	80 - 120	°C	-
Maximum residence time	5	min	-

Diagrams

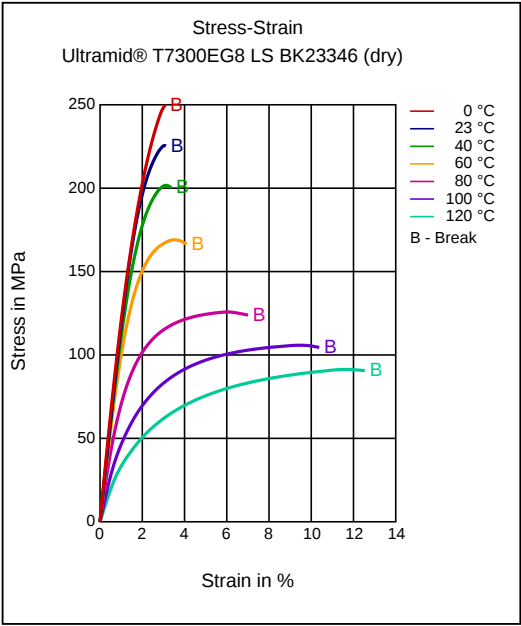
Viscosity-shear rate



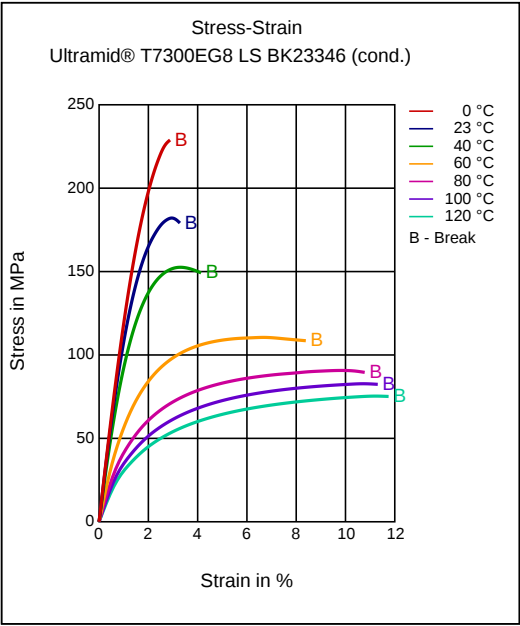
Shearstress-shear rate



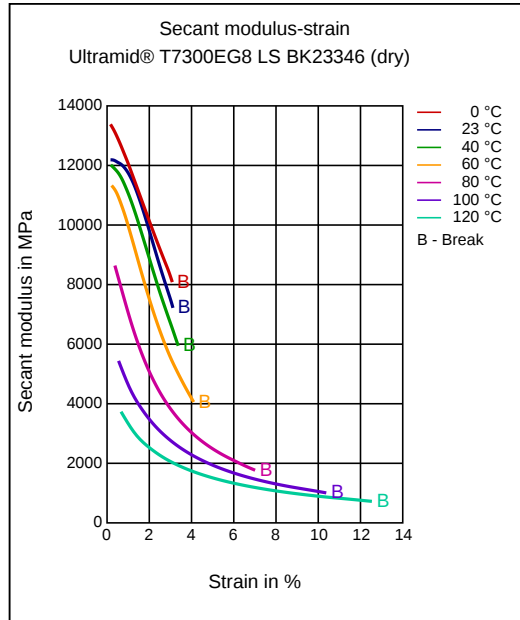
Stress-strain



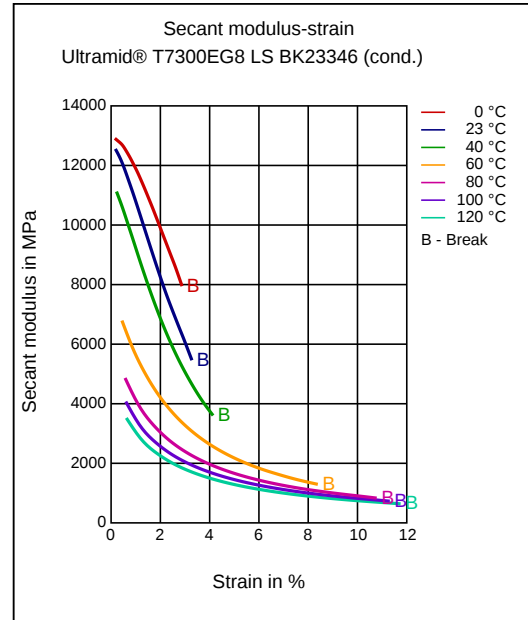
Stress-strain



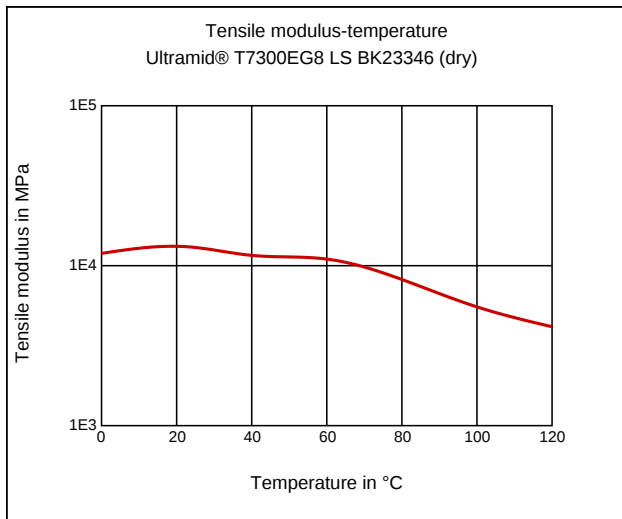
Secant modulus-strain



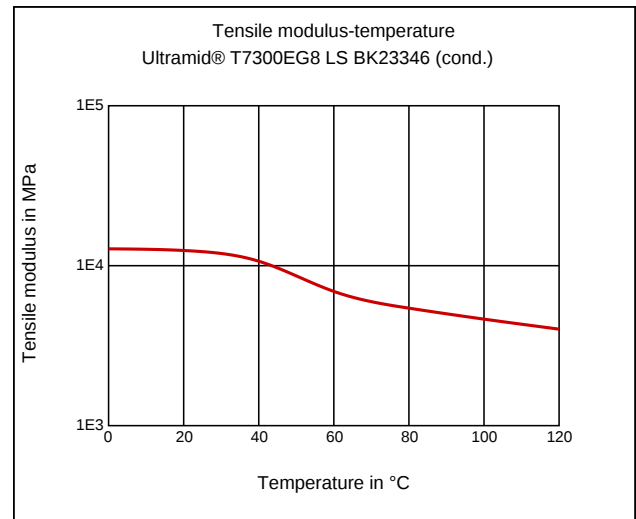
Secant modulus-strain



Tensile Modulus-Temperature



Tensile Modulus-Temperature



Characteristics

Processing

Injection Molding

Delivery form

Pellets, Black

Special Characteristics

Heat aging stabilized

Features

Laser Markable

Applications

Automotive, Electrical and Electronical

Injection Molding

PREPROCESSING

Pre/Post-processing, Pre-drying, Temperature: 110 °C

Pre/Post-processing, Pre-drying, Time: 8 h

PROCESSING

injection molding, Melt temperature, range: 280 - 310 °C
injection molding, Melt temperature, recommended: 300 °C
injection molding, Mold temperature, range: 80 - 120 °C
injection molding, Mold temperature, recommended: 100 °C
injection molding, Dwell time, thermoplastics: 5 min

Disclaimer

Liability Exclusion

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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