

Ultramid® B3EG4 SI UN
PA6-GF20

BASF

Glass fibre-reinforced injection moulding grade, with excellent surface quality especially suitable for the production of visible parts. Optimum surface quality is generally obtained at a very high injection speed.

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	25 / *	cm³/10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	7150 / 3750	MPa	ISO 527
Stress at Break	150 / 80	MPa	ISO 527
Strain at Break	3.8 / 14	%	ISO 527
Impact Strength (Charpy), +23°C	65 / 100	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	55 / 55	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	9 / 19	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	7.5 / 7.5	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)	200 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	215 / *	°C	ISO 75-1/-2

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1270 / -	kg/m³	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	148 / *	cm³/g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
ISO Data			
Processing conditions acc. ISO	1874	-	ISO-2
Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4 - 8	h	-
Processing humidity	≤0.05	%	-
Melt temperature	260 - 280	°C	-
Mold temperature	80 - 110	°C	-

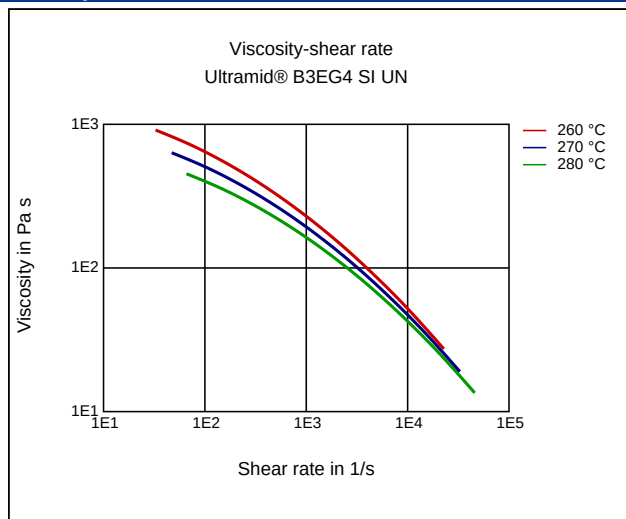
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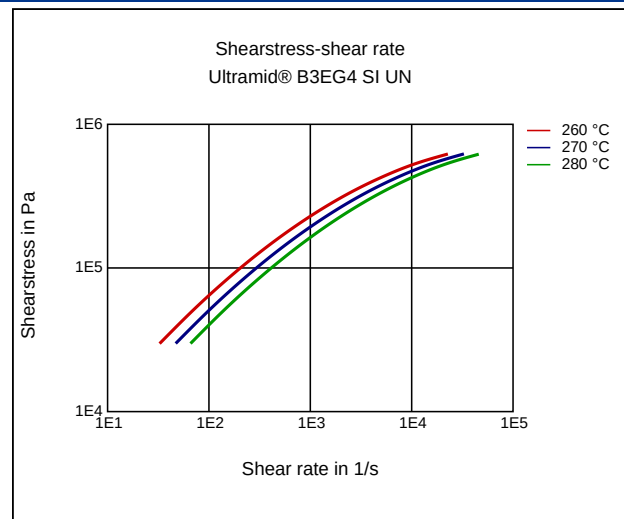
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Diagrams

Viscosity-shear rate



Shearstress-shear rate



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets, Natural Color

Injection Molding

PREPROCESSING

Pre/Post-processing, max. allowed water content: .05 %

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

Pre/Post-processing, Pre-drying, Time: 4 - 8 h

PROCESSING

injection molding, Melt temperature, range: 260 - 280 °C

injection molding, Melt temperature, recommended: 270 °C

injection molding, Mold temperature, range: 80 - 110 °C

injection molding, Mold temperature, recommended: 100 °C

injection molding, Dwell time, thermoplastics: 10 min

Chemical Media Resistance

Acids

✓ Acetic Acid (5% by mass) (23 °C)