

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

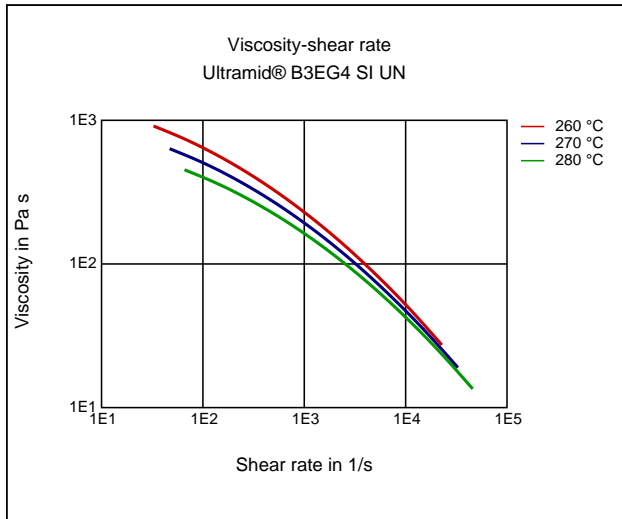
Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	148 / *	cm³/g	ISO 307, 1157, 1628

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

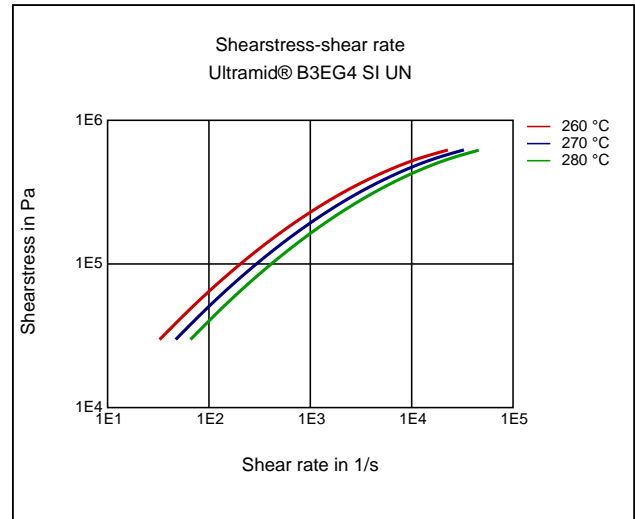
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4 - 8	h	-
Processing humidity	≤0.05	%	-
Melt temperature	260 - 280	°C	-
Mold temperature	80 - 110	°C	-

Diagrams

Viscosity-shear rate



Shearstress-shear rate



Characteristics

Processing

Injection Molding

Delivery form

Pellets, Natural Color

Additives

Release agent

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)

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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