

**Ultramid® B3M6 BK30564**  
**PA6-MD30**

BASF

A mineral-filled injection molding grade for high impact industrial items requiring very high dimensional stability, such as automobile wheel covers.

Rheological properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	50 / *	cm³/10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	1.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.1 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	4600 / 1700	MPa	ISO 527
Stress at Break	75 / 45	MPa	ISO 527
Strain at Break	12 / 45	%	ISO 527
Tensile Creep Modulus, 1h	* / 1500	MPa	ISO 899-1
Tensile Creep Modulus, 1000h	* / 800	MPa	ISO 899-1
Impact Strength (Charpy), +23°C	190 / no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	100 / -	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	9 / 18	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	5 / -	kJ/m²	ISO 179/1eA

Thermal Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Melting Temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	70 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	195 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	75 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	91 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.6 / *	mm	-
Burning Behav. at thickness h	HB / *	class	UL 94
Thickness tested	3.2 / *	mm	-

Electrical Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Relative permittivity, 1MHz	3.5 / 6.2	-	IEC 62631-2-1
Dissipation Factor, 100Hz	- / 2000	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	200 / 2000	E-4	IEC 62631-2-1
Volume Resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 1E10	Ohm	IEC 62631-3-2
Comparative tracking index	- / 450	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Water Absorption	6.2 / *	%	Sim. to ISO 62
Humidity absorption	2.4 / *	%	Sim. to ISO 62
Density	1380 / -	kg/m³	ISO 1183

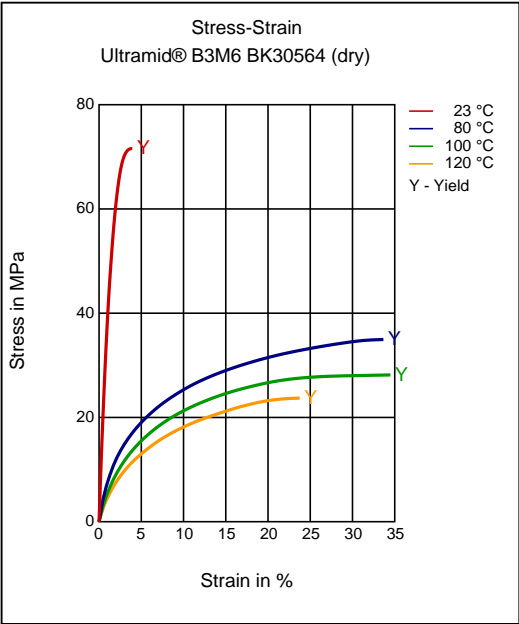
Material Specific Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Viscosity number	145 / *	cm³/g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
Injection Molding, melt temperature	270	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

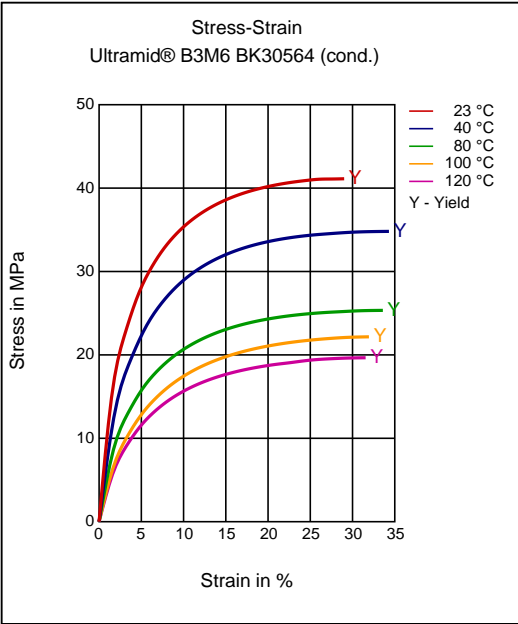
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.15	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 90	°C	-

Diagrams

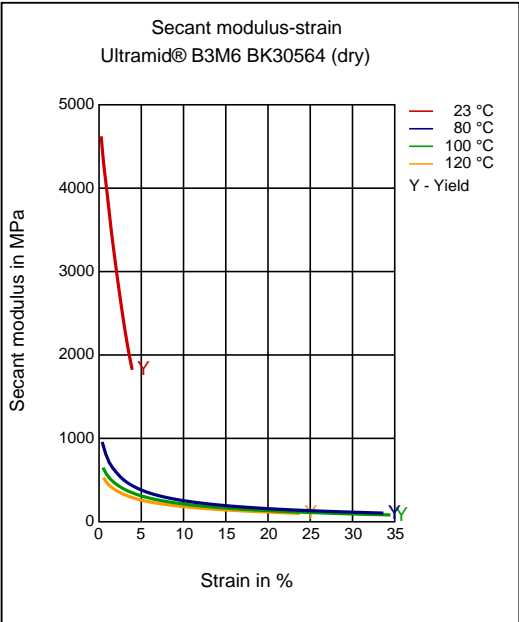
Stress-strain



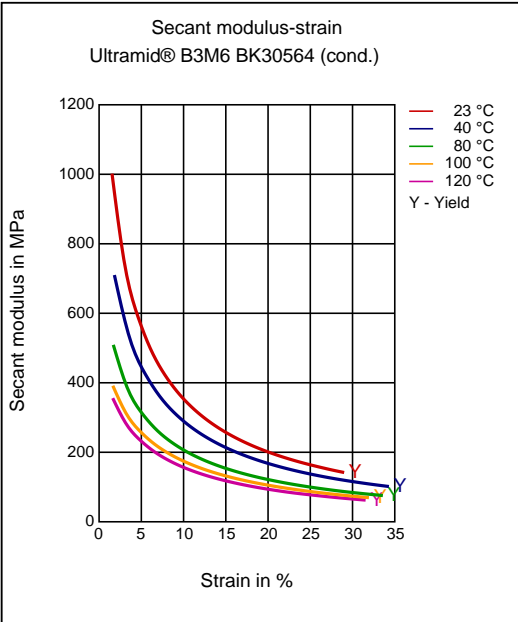
Stress-strain



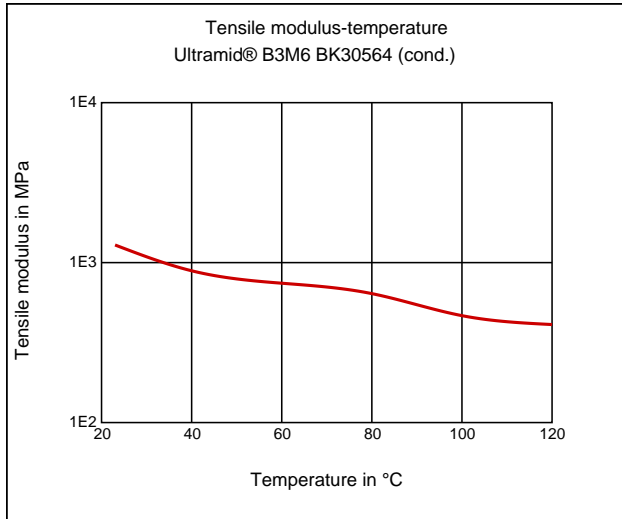
Secant modulus-strain



Secant modulus-strain



### Tensile Modulus-Temperature



### Characteristics

#### Processing

Injection Molding

#### Delivery form

Pellets, Black

#### Additives

Lubricants, Release agent

#### Special Characteristics

Heat aging stabilized

#### Applications

Automotive

### 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)

### 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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