

**Ultramid® B3WM8 BK00102**  
**PA6-MD40**

BASF

Ultramid® B3WM8 (8260 HS) BK-102 is a heat stabilized, pigmented black, 40% mineral reinforced PA6 injection molding resin. It possesses high stiffness, dimensional stability and heat resistance combined with excellent processability including low warp and resistance to sink-mark formation. It maintains its inherent chemical resistance to greases, oils and hydrocarbons.

Ultramid® 8260 HS BK-102 is generally recommended for applications such as marine hardware, brackets, fittings, bobbins, office furniture, appliance components, and power tool housings.

Mechanical Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	6400 / 3800	MPa	ISO 527
Stress at Break	85 / 60	MPa	ISO 527
Strain at Break	10 / 30	%	ISO 527
Impact Strength (Charpy), +23°C	130 / -	kJ/m <sup>2</sup>	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	3 / -	kJ/m <sup>2</sup>	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)	90 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	190 / *	°C	ISO 75-1/-2
Burning Behav. at thickness h	HB / *	class	UL 94
Thickness tested	3.0 / *	mm	-
UL recognition	yes / *	-	-

Electrical Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Volume Resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1

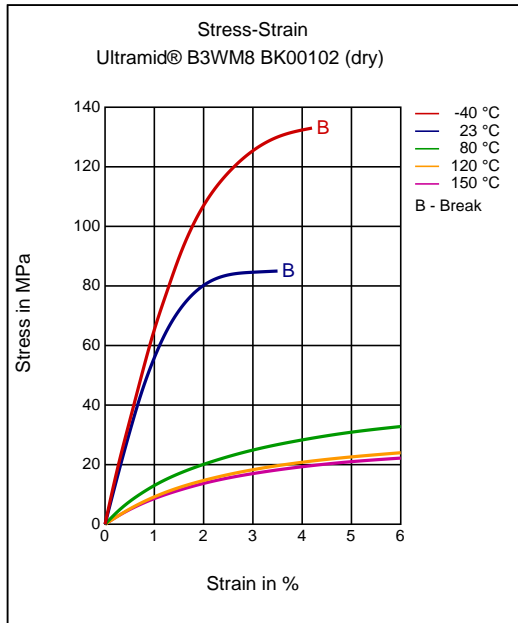
Other Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Water Absorption	5.7 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1490 / -	kg/m <sup>3</sup>	ISO 1183

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

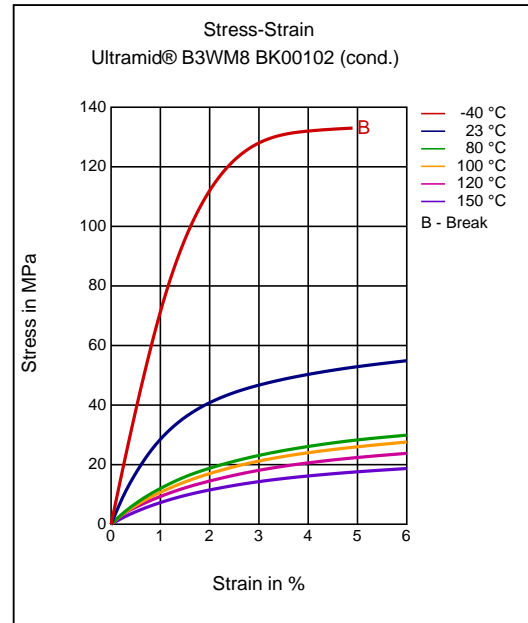
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Processing humidity	≤0.2	%	-
Melt temperature	240 - 280	°C	-
Mold temperature	80 - 95	°C	-

## Diagrams

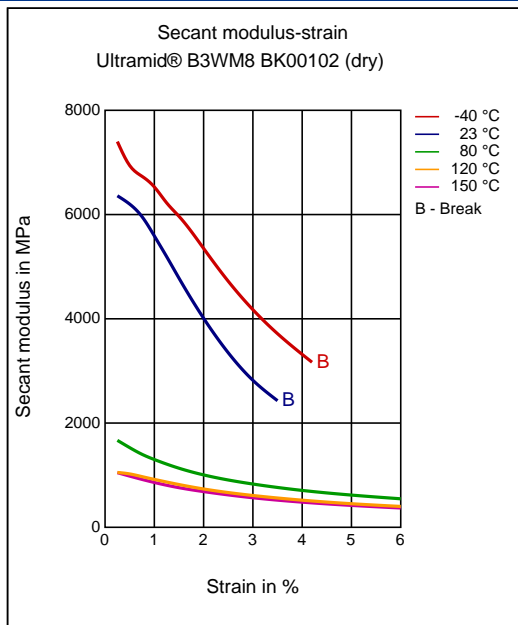
### Stress-strain



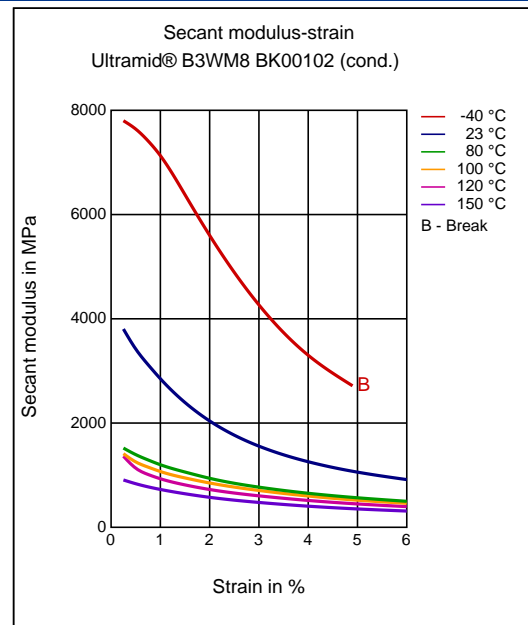
### Stress-strain



### Secant modulus-strain



### Secant modulus-strain



## Characteristics

### Processing

Injection Molding

### Delivery form

Pellets, Black

### Injection Molding

#### PROCESSING

injection molding, Melt temperature, range: 270 - 295 °C

injection molding, Melt temperature, recommended: 260 °C

injection molding, Mold temperature, range: 80 - 95 °C  
injection molding, Mold temperature, recommended: 80 °C  
injection molding, Dwell time, thermoplastics: 10 min

#### PREPROCESSING

Max. Water content: 0.2%

Product is supplied in sealed containers and drying prior to molding is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80 °C (176 °F) is recommended. Drying time is dependent on moisture level.

Further information concerning safe handling procedures can be obtained from the Material Safety Data Sheet. Alternatively, please contact your BASF representative.

#### PROCESSING

Melt Temperature 240-280 °C (464-536 °F)

Mold Temperature 80-95 °C (176-203 °F)

Injection and Packing Pressure 35-125 bar (500-1500 psi)

A mold temperature of 80-95 °C (176-203 °F) is recommended, but temperatures of as low as 10 °C (50 °F) can be used where applicable.

Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

Fast fill rates are recommended to insure uniform melt delivery to the cavity and prevent premature freezing.

#### 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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- any bodily implant application for greater than 30 days
- any critical component in any medical device that supports or sustains human life.

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