

Ultramid® B3Z2

PA6-I

BASF

Injection moulding grade, easy flowing, short cycle time, dry-impact, conditioning free technical moulded parts

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	100 / *	cm ³ /10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	1.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.4 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	2090 / 650	MPa	ISO 527
Yield stress	57 / 30	MPa	ISO 527
Yield strain	4 / 20	%	ISO 527
Nominal strain at break	50 / >50	%	ISO 527
Impact Strength (Charpy), +23°C	no break / no break	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break / -	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	56 / 128	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	20 / -	kJ/m ²	ISO 179/1eA
Flexural Modulus (23°C)	1800 / -	MPa	ISO 178

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)	60 / *	°C	ISO 75-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3.4 / -	-	IEC 62631-2-1
Dissipation Factor, 1MHz	150 / -	E-4	IEC 62631-2-1
Volume Resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	8.5 / *	%	Sim. to ISO 62
Humidity absorption	2.8 / *	%	Sim. to ISO 62
Density	1090 / -	kg/m ³	ISO 1183
Bulk density	700	kg/m ³	-

Test specimen production	Value	Unit	Test Standard
ISO Data			
Processing conditions acc. ISO	1874	-	ISO-2
Injection Molding, melt temperature	240	°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	250 - 270	°C	-
Mold temperature	40 - 60	°C	-

Characteristics

Processing

Injection Molding

Special Characteristics

Impact modified

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Delivery form

Pellets

Applications

Automotive

Additives

Release agent

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: 250 - 270 °C

injection molding, Melt temperature, recommended: 260 °C

injection molding, Mold temperature, range: 40 - 60 °C

injection molding, Mold temperature, recommended: 60 °C

injection molding, Dwell time, thermoplastics: 10 min

Chemical Media Resistance

Acids

- ✓ Acetic Acid (5% by mass) (23°C)