

Ultramid® B3S BK00464

Polyamide 6

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm ³	1183	1.13	
Moisture, %	62		
(50% RH)		3	
(Saturation)		9.5	
RHEOLOGICAL	ISO Test Method	Dry	Conditioned
Melt Volume Rate (275 °C/5 Kg), cc/10min.	1133	175	-
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile Modulus, MPa	527		
23 °C		3,400	1,200
Tensile stress at yield, MPa	527		
23 °C		88	45
Tensile strain at yield, %	527		
23 °C		3.8	20
Nominal strain at break, %	527		
23 °C		10	>50
Flexural Modulus, MPa	178		
23 °C		2,900	-
IMPACT	ISO Test Method	Dry	Conditioned
Izod Notched Impact, kJ/m²	180		
23 °C		3	-
Charpy Notched, kJ/m²	179		

-30°C		3	-
23°C		4	50
Charpy Unnotched, kJ/m²	179		
-30°C		200	-
23°C		250	N
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, °C	3146	220	-
HDT A, °C	75	65	-
HDT B, °C	75	180	-
UL RATINGS	UL Test Method	Property Value	
Flammability Rating, 1.5mm	UL94	V-2	
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, °C		110	
Mechanical w/ Impact, °C		75	
Electrical, °C		130	
Flammability Rating, 3.0mm	UL94	V-2	
Relative Temperature Index, 3.0mm	UL746B		
Mechanical w/o Impact, °C		115	
Mechanical w/ Impact, °C		75	
Electrical, °C		130	
Flammability Rating, 6.0mm	UL94	V-2	
Relative Temperature Index, 6.0mm	UL746B		
Mechanical w/o Impact, °C		115	
Mechanical w/ Impact, °C		75	
Electrical, °C		130	

Processing Guidelines

Material Handling

Max. Water content: 0.15%

Material is supplied in sealed containers and drying prior to molding in a dehumidifying or desiccant dryer is recommended. Drying parameters are dependent upon the actual percentage of moisture in the pellets and typical pre-drying conditions are 2-4 hours at 180F (83C). Further information concerning safe handling procedures can be obtained from the Safety Data Sheet (MSDS), or by contacting your BASF representative.

Typical Profile

Melt Temperature: 240-285°C (464-545°F)

Mold Temperature: 65-80°C (149-176°F)

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

Mold Temperatures

A mold temperature of 65-80°C (149-176°F) is recommended, however temperatures of as low as 10°C (50°F) can be used where applicable.

Pressures

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.

Fill Rate

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

Note

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