

Ultramid® 66 H2 G/25-V0KB1 NAT0046

Polyamide 66

Product Description

Ultramid 66 H2 G/25-V0KB1 NAT0046 is a 25% glass reinforced, heat stabilized injection molding grade. It is a V-0 self-extinguishing grade, based on red phosphorous. It offers good flowability and mechanical properties. It has excellent electrical properties.

Applications

Ultramid 66H2 G/25-V0KB1 NAT0046 is designed for applications requiring good processing, mechanical integrity and flammability performance.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm ³	1183	1.35	
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile stress at break, MPa	527		
23°C		145	-
Tensile strain at break, %	527		
23°C		2.4	-
Flexural Modulus, MPa	178		
23°C		7,900	-
IMPACT	ISO Test Method	Dry	Conditioned
Izod Notched Impact, kJ/m ²	180		
23°C		7.7	-
Charpy Notched, kJ/m ²	179		
23°C		8.5	-
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, °C	3146	260	-
HDT A, °C	75	245	-
UL RATINGS	UL Test Method	Property Value	
Flammability Rating, 0.75mm	UL94	HB	
Relative Temperature Index, 0.75mm	UL746B		
Mechanical w/o Impact, °C		140	
Mechanical w/ Impact, °C		115	
Electrical, °C		130	
Flammability Rating, 1.5mm	UL94	V-0	
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, °C		140	
Mechanical w/ Impact, °C		115	
Electrical, °C		130	
Flammability Rating, 3.0mm	UL94	V-0	
Relative Temperature Index, 3.0mm	UL746B		
Mechanical w/o Impact, °C		140	
Mechanical w/ Impact, °C		115	
Electrical, °C		130	

Processing Guidelines

Material Handling

Max. Water content: 0.05%

Special handling and safety precautions must be used when processing this grade of material. Please contact your BASF Technical Service Representative for details. Product is supplied in moisture barrier packaging. However, further drying is typically required. A dehumidifying or desiccant dryer operating at 80°C (176°F) is recommended. Drying time is dependent on moisture level, however 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF Technical Service representative.

Typical Profile

Melt Temperature 285-300°C (545-572°F)

Mold Temperature 80-90°C (176-194°F)

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

Mold Temperatures

This product can be processed over a wide range of mold temperatures; however, for applications where aesthetics are critical, a mold surface temperature of 80-95°C (176-203°F) is required.

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.

Back pressure can be utilized to provide uniform melt consistency and reduce trapped air and gas. Minimal back pressure should be utilized to prevent glass breakage.

Fill Rate

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

affected by injection rate.

Note

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