Product Information

Aug 2013

Ultramid® C3U BK23079
Polyamide 6/66

BASF The Chemical Company

Product Description

Ultramid C3U BK23079 is an injection molding, general purpose PA6/66, pigmented black grade with improved flame retardance. The product is UL recognized as 94V0 at 0.4 mm minimum thickness.

Applications

It is used for impact resistant electrical insulating parts such as contact bases and plug connector strips.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.16	
Moisture, %	62		
(50% RH)		2.9	
(Saturation)		8.5	
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
23C		3,770	-
Tensile stress at yield, MPa	527		
23C		84	-
Tensile strain at yield, %	527		
23C		3.7	-
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Charpy Unnotched, kJ/m^2	179		
23C		69	-
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**
Melting Point, C	3146	243	-
HDT A, C	75	68	-
ELECTRICAL	**ISO Test Method**	**Dry**	**Conditioned**
Comparative Tracking Index	IEC 60112	600	-
UL RATINGS	**UL Test Method**	**Property Value**	
Flammability Rating, 1.5mm	UL94	V-0	
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, C		120	
Mechanical w/ Impact, C		105	
Electrical, C		120	

Processing Guidelines

Material Handling

Max. Water content: 0.15%

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 degC (176 degF) is recommended. Drying time is dependent on moisture level, but 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Material Safety Data Sheet. Alternatively, please contact your BASF representative.

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Typical Profile
Melt Temperature 240-285 degC (464-545 degF)
Mold Temperature 65-80 degC (149-176 degF)
Injection and Packing Pressure 35-125 bar (500-1500 psi)

Mold Temperatures
A mold temperature of 65-80 degC (149-176 degF) is recommended, but temperatures of as low as 10 degC (50 degF) 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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