Product Information

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Ultramid® B27 E 01

Polyamide 6

Product Description

Ultramid B27 E 01 is a low viscosity general-purpose, extrusion PA6 grade well suited for compounding. It conforms to FDA requirements including, 21 CFR 177.1500,EU Directive 2002/72/EC, the German BfR recommendation "X Polyamide", 1.6.1998 or legislations for other countries will be provided on request.

Applications

Typical applications include monofilaments.

PHYSICAL	**ISO Test Method**	**Property Value**	
Density, g/cm	1183	1.13	
Moisture, %	62		
(50% RH)		2.6	
(Saturation)		9.5	
RHEOLOGICAL	**ISO Test Method**	**Dry**	**Conditioned**
Melt Volume Rate (275 C/5 Kg), cc/10min.	1133	130	-
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
23C		3,000	1,000
Tensile stress at yield, MPa	527		
23C		90	45
Tensile strain at yield, %	527		
23C		4.5	20
Nominal strain at break, %	527		
23C		15	>50
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Charpy Notched, kJ/m^2	179		
23C		8	60
Charpy Unnotched, kJ/m^2	179		
23C		N	N
-30C		N	-
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**
Melting Point, C	3146	220	-
HDT A, C	75	65	-
Coef. of Linear Thermal Expansion, Parallel, mm/mm C		0.85 X10-4	-
ELECTRICAL	**ISO Test Method**	**Dry**	**Conditioned**
Comparative Tracking Index	IEC 60112	600	600
Volume Resistivity	IEC 60093	1E13	1E10
Dielectric Constant (100 Hz)	IEC 60250	4	-
Dielectric Constant (1 MHz)	IEC 60250	3.5	7
Dissipation Factor (100 Hz)	IEC 60250	100	-
Dissipation Factor (1 MHz)	IEC 60250	230	3,000

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.

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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