Lanxess DurethanÂ® BKV 15 H3.0 000000 Nylon 6 Copolymer, 15% Glass Fibers

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 20% Glass Fiber Filled

Material Notes:

PA 6 Copolymer, 15% glass fibers, injection molding, heat-ageing stabilized

Order this product through the following link:
http://www.lookpolymers.com/polymer_Lanxess-Durethan-BKV-15-H30-000000-Nylon-6-Copolymer-15-Glass-Fibers.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.23 g/cc	1.23 g/cc	ISO 1183
Bulk Density	0.700 g/cc	0.0253 lb/inÂ³	ISO 60
Moisture Absorption at Equilibrium	2.6 %	2.6 %	50% RH; ISO 62
Water Absorption at Saturation	8.5 %	8.5 %	ISO 62
Linear Mold Shrinkage, Flow	0.0040 cm/cm @Thickness 2.00 mm	0.0040 in/in @Thickness 0.0787 in	Mold Temp 80Â°C; Melt Temp 280Â°C; 600 bar; ISO 294-4
Linear Mold Shrinkage, Transverse	0.0060 cm/cm @Thickness 2.00 mm	0.0060 in/in @Thickness 0.0787 in	Mold Temp 80Â°C; Melt Temp 280Â°C; 600 bar; ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	75.0 MPa	10900 psi	Conditioned; ISO 527-1,-2
	125 MPa	18100 psi	ISO 527-1,-2
Elongation at Break	3.0 %	3.0 %	ISO 527-1,-2
	12 %	12 %	Conditioned; ISO 527-1,-2
Tensile Modulus	3.60 GPa	522 ksi	Conditioned; ISO 527-1,-2
	6.00 GPa	870 ksi	ISO 527-1,-2
Flexural Strength	120 MPa @Strain 8.00 %	17400 psi @Strain 8.00 %	Conditioned; ISO 178
	200 MPa @Strain 5.00 %	29000 psi @Strain 5.00 %	ISO 178
Flexural Yield Strength	90.0 MPa @Strain 3.50 %	13100 psi @Strain 3.50 %	Conditioned; ISO 178
	201 MPa	29200 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 3.50 %	@Strain 3.50 %	ISO 178
Flexural Modulus	3.10 GPa	450 ksi	Conditioned; ISO 178
	5.60 GPa	812 ksi	ISO 178
Izod Impact, Notched (ISO)	<= 10.0 kJ/mÂ² @Temperature 23.0 Â°C	<= 4.76 ft-lb/inÂ² @Temperature 73.4 Â°F	ISO 180-1A
	<= 10.0 kJ/mÂ² @Temperature 23.0 Â°C	<= 4.76 ft-lb/inÂ² @Temperature 73.4 Â°F	Conditioned; ISO 180-1A
	<= 10.0 kJ/mÂ² @Temperature -30.0 Â°C	<= 4.76 ft-lb/inÂ² @Temperature -22.0 Â°F	ISO 180-1A
	<= 10.0 kJ/mÂ² @Temperature -30.0 Â°C	<= 4.76 ft-lb/inÂ² @Temperature -22.0 Â°F	Conditioned; ISO 180-1A
Izod Impact, Unnotched (ISO)	30.0 kJ/mÂ² @Temperature -30.0 Â°C	14.3 ft-lb/inÂ² @Temperature -22.0 Â°F	ISO 180-1U
	35.0 kJ/mÂ² @Temperature 23.0 Â°C	16.7 ft-lb/inÂ² @Temperature 73.4 Â°F	ISO 180-1U
	35.0 kJ/mÂ² @Temperature -30.0 Â°C	16.7 ft-lb/inÂ² @Temperature -22.0 Â°F	Conditioned; ISO 180-1U
	75.0 kJ/mÂ² @Temperature 23.0 Â°C	35.7 ft-lb/inÂ² @Temperature 73.4 Â°F	Conditioned; ISO 180-1U
Charpy Impact Unnotched	3.50 J/cmÂ² @Temperature -30.0 Â°C	16.7 ft-lb/inÂ² @Temperature -22.0 Â°F	ISO 179-1eU
	3.50 J/cmÂ² @Temperature -30.0 Â°C	16.7 ft-lb/inÂ² @Temperature -22.0 Â°F	Conditioned; ISO 179-1eU
	4.00 J/cmÂ² @Temperature 23.0 Â°C	19.0 ft-lb/inÂ² @Temperature 73.4 Â°F	ISO 179-1eU

Mechanical Properties	Metric	English	Comments
	7.00 J/cmÂ² @Temperature 23.0 Â°C	33.3 ft-lb/inÂ² @Temperature 73.4 Â°F	Conditioned; ISO 179-1eU
Charpy Impact, Notched	1.00 J/cmÂ² @Temperature 23.0 Â°C	4.76 ft-lb/inÂ² @Temperature 73.4 Â°F	Conditioned; ISO 179-1eA
	<= 1.00 J/cmÂ² @Temperature 23.0 Â°C	<= 4.76 ft-lb/inÂ² @Temperature 73.4 Â°F	ISO 179-1eA
	<= 1.00 J/cmÂ² @Temperature -30.0 Â°C	<= 4.76 ft-lb/inÂ² @Temperature -22.0 Â°F	ISO 179-1eA
	<= 1.00 J/cmÂ² @Temperature -30.0 Â°C	<= 4.76 ft-lb/inÂ² @Temperature -22.0 Â°F	Conditioned; ISO 179-1eA
	<= 1.00 J/cmÂ² @Temperature -40.0 Â°C	<= 4.76 ft-lb/inÂ² @Temperature -40.0 Â°F	ISO 179-1eA
	<= 1.00 J/cmÂ² @Temperature -40.0 Â°C	<= 4.76 ft-lb/inÂ² @Temperature -40.0 Â°F	Conditioned; ISO 179-1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	30.0 Âµm/m-Â°C	16.7 Âµin/in-Â°F	ISO 11359-1,-2
CTE, linear, Transverse to Flow	80.0 Âµm/m-Â°C	44.4 Âµin/in-Â°F	ISO 11359-1,-2
Melting Point	213 Â°C	415 Â°F	ISO 11357-1,-3
Deflection Temperature at 0.46 MPa (66 psi)	210 Â°C	410 Â°F	ISO 75-1,-2
Deflection Temperature at 1.8 MPa (264 psi)	190 Â°C	374 Â°F	ISO 75-1,-2
Vicat Softening Point	>= 200 Â°C @Load 5.10 kg	>= 392 Â°F @Load 11.2 lb	120Â°C/h; ISO 306
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	
	HB @Thickness 3.20 mm	HB @Thickness 0.126 in	

Thermal Properties	Metric	English	Comments
Glow Wire Test	650 Â°C @Diameter 2.00 mm	1200 Â°F @Diameter 0.0787 in	IEC 60695-2-12
Shrinkage	0.10 % @Temperature 120 Â°C, Time 14400 sec	0.10 % @Temperature 248 Â°F, Time 4.00 hour	Molding Post-shrinkage; ISO 294-4
	0.10 % @Temperature 120 Â°C, Time 14400 sec	0.10 % @Temperature 248 Â°F, Time 4.00 hour	Molding Post-shrinkage; ISO 294-4

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	Conditioned; IEC 60093
	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	Conditioned; IEC 60093
	1.00e+14 ohm	1.00e+14 ohm	IEC 60093
Dielectric Constant	3.7 @Frequency 1.00e+6 Hz	3.7 @Frequency 1.00e+6 Hz	IEC 60250
	4.6 @Frequency 100 Hz	4.6 @Frequency 100 Hz	IEC 60250
	4.6 @Frequency 1.00e+6 Hz	4.6 @Frequency 1.00e+6 Hz	Conditioned; IEC 60250
	19 @Frequency 100 Hz	19 @Frequency 100 Hz	Conditioned; IEC 60250
Dielectric Strength	22.0 kV/mm @Thickness 1.00 mm	559 kV/in @Thickness 0.0394 in	Conditioned; IEC 60243-1
	35.0 kV/mm @Thickness 1.00 mm	889 kV/in @Thickness 0.0394 in	IEC 60243-1
Dissipation Factor	0.030 @Frequency 100 Hz	0.030 @Frequency 100 Hz	IEC 60250
	0.038 @Frequency 100 Hz	0.038 @Frequency 100 Hz	IEC 60250
	0.12	0.12	

Electrical Properties	Metric	English	Comments
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	Conditioned; IEC 60250
	0.38 @Frequency 1.00e+6 Hz	0.38 @Frequency 1.00e+6 Hz	Conditioned; IEC 60250
Comparative Tracking Index	500 V	500 V	Solution A, Rating; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	260 - 290 Â°C	500 - 554 Â°F	Recommended
	280 Â°C	536 Â°F	Processing conditions for test specimens; ISO 294
Mold Temperature	80.0 Â°C	176 Â°F	Processing conditions for test specimens; ISO 294
	80.0 - 100 Â°C	176 - 212 Â°F	Recommended
Drying Temperature	80.0 Â°C	176 Â°F	
Dry Time	2 - 6 hour	2 - 6 hour	
Moisture Content	0.030 - 0.12 %	0.030 - 0.12 %	Residual; Acc. To Karl Fischer

Descriptive Properties	Value	Comments
Flammability	Passed US-FMVSS302	ISO 3795
ISO Shortname	ISO 1874-PA 6/66,GHR,14-060,GF15	

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