

Lanxess Durethan® BKV 140 H2.0 900051 Copolyamide, 40% Glass Fiber

Category : Polymer , Thermoplastic , Nylon , Nylon 6

Material Notes:

CoPA, injection molding grade, 40% glass fibers, elastomer-modified, electroplateable, higher notched impact strength and also higher energy absorption under biaxial impact load than BKV 40, even in the dry state, good heat-ageing resistance

Order this product through the following link:

http://www.lookpolymers.com/polymer_Lanxess-Durethan-BKV-140-H20-900051-Copolyamide-40-Glass-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.46 g/cc	0.0527 lb/in ³	ISO 1183
Water Absorption	6.0 %	6.0 %	Test Sim. to ISO 62
Moisture Absorption at Equilibrium	1.6 %	1.6 %	23 ^o C/50% R.H.; Test Sim. to ISO 62
Viscosity Test	134 cm ³ /g	134 cm ³ /g	Viscosity number; ISO 307, 1157, 1628
Melt Flow	7 g/10 min @Load 5.00 kg, Temperature 260 ^o C	7 g/10 min @Load 11.0 lb, Temperature 500 ^o F	Estimated using room temperature density; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	115 MPa	16700 psi	Conditioned; ISO 527-1/-2
	180 MPa	26100 psi	ISO 527-1/-2
Elongation at Break	3.0 %	3.0 %	ISO 527-1/-2
	6.0 %	6.0 %	Conditioned; ISO 527-1/-2
Tensile Modulus	6.70 GPa	972 ksi	Conditioned; ISO 527-1/-2
	11.5 GPa	1670 ksi	ISO 527-1/-2
Charpy Impact Unnotched	8.50 J/cm ² @Temperature -30.0 ^o C	40.4 ft-lb/in ² @Temperature -22.0 ^o F	ISO 179/1eU
	8.50 J/cm ² @Temperature -30.0 ^o C	40.4 ft-lb/in ² @Temperature -22.0 ^o F	Conditioned; ISO 179/1eU
	9.00 J/cm ² @Temperature 23.0 ^o C	42.8 ft-lb/in ² @Temperature 73.4 ^o F	ISO 179/1eU

Mechanical Properties	Metric	English	Comments
	11.0 J/cmÂ²	52.3 ft-lb/inÂ²	Conditioned; ISO 179/1eU
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
Charpy Impact, Notched	1.00 J/cmÂ²	4.76 ft-lb/inÂ²	ISO 179/1eA
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
	1.00 J/cmÂ²	4.76 ft-lb/inÂ²	Conditioned; ISO 179/1eA
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
	2.00 J/cmÂ²	9.52 ft-lb/inÂ²	ISO 179/1eA
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
	3.50 J/cmÂ²	16.7 ft-lb/inÂ²	Conditioned; ISO 179/1eA
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
Impact	1144	1144	Puncture maximum force (N); ISO 6603-2
	921	921	Puncture maximum force (N); ISO 6603-2
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
Puncture Energy	4.00 J	2.95 ft-lb	ISO 6603-2
	3.00 J	2.21 ft-lb	ISO 6603-2
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
	3.00 J	2.21 ft-lb	Conditioned; ISO 6603-2
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
Tensile Creep Modulus, 1 hour	6100 MPa	885000 psi	ISO 899-1
Tensile Creep Modulus, 1000 hours	4900 MPa	711000 psi	ISO 899-1

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 Âµm/m-Â°C	11.1 Âµin/in-Â°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	90.0 Âµm/m-Â°C	50.0 Âµin/in-Â°F	ISO 11359-1/-2
Melting Point	213 Â°C	415 Â°F	10Â°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	210 Â°C	410 Â°F	ISO 75-1/-2

Thermal Properties	200 Â°C Metric	392 Â°F English	ISO 75-1/-2 Comments
Deflection Temperature at 1.8 MPa (150 psi)			
Deflection Temperature at 8.0 MPa	150 Â°C	302 Â°F	ISO 75-1/-2
Vicat Softening Point	200 Â°C	392 Â°F	50Â°C/h 50N; ISO 306
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	HB	HB	IEC 60695-11-10
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	22 %	22 %	ISO 4589-1/-2

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+10 ohm	1.00e+10 ohm	IEC 60093
Dielectric Constant	4.0	4.0	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	4.0	4.0	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	5.0	5.0	Conditioned; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	10	10	Conditioned; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	35.0 kV/mm	889 kV/in	Conditioned; IEC 60243-1
	40.0 kV/mm	1020 kV/in	IEC 60243-1
Comparative Tracking Index	500 V	500 V	IEC 60112

Descriptive Properties	Value	Comments
Additives	Release agent	
Features	Heat stabilized or stable to heat	
	High impact or high impact modified	

Form Descriptive Properties	Pellets Value	Comments
ISO Shortname	ISO 1874-PA 6/66-I, MHR, 14-110, GF40	
Processing	Injection molding	
Region	Asia Pacific	
	Europe	
	Near East/Africa	
	North America	
	South and Central America	

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