

Solvay TECHNYLÂ® B 50 H1 PA66/6, DRY

Category : Polymer , Thermoplastic , Nylon , Nylon 6/66

Material Notes:

Description: TECHNYLÂ® B 50H1 is an unreinforced melamine cyanurate flame retarded copolyamide 66/6. This product has been heat stabilized and is suitable for injection molding. This product is available in natural, black, and in other colors upon request. Benefits: This phosphorus and halogen free flame retardant grade, UL94 V0 at 0.4mm, offers excellent filling qualities together with good stiffness. Available in: Asia Pacific, Europe, Latin America and North America Regulations compliance: Grades produced or imported in Europe comply with directive 453/2010/EC, which amends REACH directive 1907/2006/EC. This grade complies with RoHS directive 2002/95/EC. Unless specified, this grade is not suitable for food contact, medical devices or toy applications. Applications: Connectivity-junction blocks, terminal blocks, connectorsâ€¦ Information provided by Rhodia, Rhodia has been acquired by Solvay.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-TECHNYL-B-50-H1-PA666-DRY.php

Physical Properties	Metric	English	Comments
Density	1.16 g/cc	0.0419 lb/inÂ³	ISO 1183/A
Water Absorption	1.1 %	1.1 %	ISO 62
	@Temperature 23.0 Â°C, Time 86400 sec	@Temperature 73.4 Â°F, Time 24.0 hour	
Viscosity	25 cP	25 cP	
	@Shear Rate 100 1/s, Temperature 290 Â°C	@Shear Rate 100 1/s, Temperature 554 Â°F	
	27 cP	27 cP	
	@Shear Rate 1000 1/s, Temperature 290 Â°C	@Shear Rate 1000 1/s, Temperature 554 Â°F	
	29 cP	29 cP	
	@Shear Rate 1000 1/s, Temperature 270 Â°C	@Shear Rate 1000 1/s, Temperature 518 Â°F	
107 cP	30 cP	30 cP	
	@Shear Rate 1000 1/s, Temperature 260 Â°C	@Shear Rate 1000 1/s, Temperature 500 Â°F	
109 cP	107 cP	107 cP	
	@Shear Rate 100 1/s, Temperature 270 Â°C	@Shear Rate 100 1/s, Temperature 518 Â°F	
109 cP	109 cP	109 cP	
	@Shear Rate 100 1/s, Temperature 260 Â°C	@Shear Rate 100 1/s, Temperature 500 Â°F	
109 cP	109 cP	109 cP	

Physical Properties	Metric	English	Comments
	@Shear Rate 10.0 1/s, Temperature 290 Å°C	@Shear Rate 10.0 1/s, Temperature 554 Å°F	
	120 cP	120 cP	
	@Shear Rate 10.0 1/s, Temperature 270 Å°C	@Shear Rate 10.0 1/s, Temperature 518 Å°F	
	130 cP	130 cP	
	@Shear Rate 10.0 1/s, Temperature 260 Å°C	@Shear Rate 10.0 1/s, Temperature 500 Å°F	
Linear Mold Shrinkage	0.011 cm/cm	0.011 in/in	Isotropy
Linear Mold Shrinkage, Flow	0.011 cm/cm	0.011 in/in	
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	70.0 MPa	10200 psi	ISO 527 Type 1A
Tensile Stress	35.0 MPa	5080 psi	
	@Strain 1.00 %	@Strain 1.00 %	
	62.0 MPa	8990 psi	
	@Strain 2.00 %	@Strain 2.00 %	
	75.0 MPa	10900 psi	
	@Strain 3.00 %	@Strain 3.00 %	
	78.0 MPa	11300 psi	
	@Strain 4.00 %	@Strain 4.00 %	
Tensile Strength, Yield	80.0 MPa	11600 psi	ISO 527 type 1 A
	85.0 MPa	12300 psi	ASTM D638
Elongation at Break	10 %	10 %	ISO 527 Type 1A
	10 %	10 %	ASTM D638
Elongation at Yield	4.0 %	4.0 %	ISO 527 type 1 A
Tensile Modulus	3.60 GPa	522 ksi	ISO 527 Type 1A
Flexural Strength	105 MPa	15200 psi	ISO 178
	120 MPa	17400 psi	ASTM D790
Flexural Modulus	3.65 GPa	529 ksi	ISO 178

Izod Impact, Notched Mechanical Properties	0.600 J/cm Metric	1.12 ft-lb/in English	ASTM D256 Comments
Izod Impact, Notched (ISO)	5.00 kJ/m ²	2.38 ft-lb/in ²	ISO 180/1eA
Charpy Impact Unnotched	9.00 J/cm ²	42.8 ft-lb/in ²	ISO 179/1eU
Charpy Impact, Notched	0.450 J/cm ²	2.14 ft-lb/in ²	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	65.0 Åµm/m-Å°C	36.1 Åµin/in-Å°F	ISO 11359
	@Temperature 23.0 - 85.0 Å°C	@Temperature 73.4 - 185 Å°F	
Melting Point	242 Å°C	468 Å°F	ISO 11357
Deflection Temperature at 1.8 MPa (264 psi)	85.0 Å°C	185 Å°F	ISO 75/Af
UL RTI, Electrical	120 Å°C	248 Å°F	
	@Thickness 0.380 - 3.00 mm	@Thickness 0.0150 - 0.118 in	
UL RTI, Mechanical with Impact	90.0 Å°C	194 Å°F	
	@Thickness 0.750 - 3.00 mm	@Thickness 0.0295 - 0.118 in	
Flammability, UL94	V-0	V-0	1210
	@Thickness 0.380 mm	@Thickness 0.0150 in	
	V-0	V-0	1210
	@Thickness 0.800 mm	@Thickness 0.0315 in	
V-0	V-0	V-0	1210
	@Thickness 1.60 mm	@Thickness 0.0630 in	
V-0	V-0	V-0	1210
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	33 %	33 %	ISO 4589
Glow Wire Test	650 Å°C	1200 Å°F	ignition temperature; ISO 60695-2-13
	@Thickness 1.60 mm	@Thickness 0.0630 in	
960 Å°C	960 Å°C	1760 Å°F	ISO 60695-2-12
	@Thickness 0.800 mm	@Thickness 0.0315 in	
960 Å°C	960 Å°C	1760 Å°F	ISO 60695-2-12
	@Thickness 1.60 mm	@Thickness 0.0630 in	

Thermal Properties	960 Â°C Metric	1750 Â°F English	Comments ISO 60093-2-12
	@Thickness 3.20 mm	@Thickness 0.126 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	1.00e+15 ohm	1.00e+15 ohm	IEC 60093
Dielectric Constant	3.6	3.6	IEC 60250
Dielectric Strength	34.0 kV/mm	864 kV/in	IEC 60243
Dissipation Factor	0.020	0.020	IEC 60250
Comparative Tracking Index	575 V	575 V	Solution B; IEC 60112
	600 V	600 V	Solution A; IEC 60112

Processing Properties	Metric	English	Comments
Feed Temperature	240 - 250 Â°C	464 - 482 Â°F	
Front Barrel Temperature	250 - 260 Â°C	482 - 500 Â°F	
Mold Temperature	60.0 - 80.0 Â°C	140 - 176 Â°F	
Drying Temperature	80.0 Â°C	176 Â°F	
Moisture Content	<= 0.20 %	<= 0.20 %	

Descriptive Properties	Value	Comments
Compression Zone	245-255Â°C	
Fire and smoke F index	I2/F3	NF F 16 101

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