

TECHNYL® PROTECT B 50H1 BK LBO 129

DOMO Engineering Plastics - Polyamide 66/6 Copolymer

General Information

Product Description

*Previously TECHNYL B 50H1 BLACK LBO 129

TECHNYL PROTECT B 50H1 BK LBO 129 is an unreinforced copolyamide 6.6/6 based on a non-phosphorous and non-halogenated flame retardant system, heat stabilized, for injection moulding. This flame retardant grade, UL94 V0 at 0.4mm, offers excellent filling qualities together with good stiffness.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Flame Retardant		
Features	• Flame Retardant	• Halogen Free	
Uses	• Connectors	• Electrical/Electronic Applications	
Agency Ratings	• EN 45545	• UL 94	
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
ISO Designation (ISO 16396)	• PA66/6,FR(30),M1,S14-040		
Resin ID (ISO 1043)	• PA66/6 FR(30)		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.16	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	1.1	--	%	
Water Absorption (24 hr, 73°F)	1.1	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	3.1	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	537000	145000	psi	ISO 527-1
Tensile Stress (Yield)	11600	5800	psi	ISO 527-2
Tensile Stress (Break)	10200	5800	psi	ISO 527-2
Tensile Strain (Yield)	3.5	25	%	ISO 527-2
Tensile Strain (Break)	4.0	100	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	1.2	--	ft·lb/in ²	
73°F	1.3	3.8	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	26	--	ft·lb/in ²	
73°F	26	-0.48	ft·lb/in ²	
Notched Izod Impact Strength (73°F)	2.4	3.1	ft·lb/in ²	ISO 180/1A
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	185	--	°F	ISO 75-2/A
Melting Temperature ²	468	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+15	--	ohms	IEC 62631-3-2
Volume Resistivity	1.0E+13	--	ohms·m	IEC 62631-3-1



Electric Strength	840	--	V/mil	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 0	--		IEC 60112
Comparative Tracking Index	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.0394 in)	< 3.9	--	in/min	FMVSS 302
Flame Rating				UL 94
0.016 in	V-0	--		
0.030 in	V-0	--		
0.06 in	V-0	--		
0.12 in	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.030 in	1760	--	°F	
0.06 in	1760	--	°F	
0.12 in	1760	--	°F	
Glow Wire Ignition Temperature (0.06 in)	1200	--	°F	IEC 60695-2-13
Oxygen Index	33	--	%	

Processing Information

Injection	Dry Unit
Drying Temperature	176 °F
Suggested Max Moisture	0.20 %
Rear Temperature	473 to 482 °F
Middle Temperature	482 to 491 °F
Front Temperature	482 to 500 °F
Mold Temperature	140 to 176 °F

Injection Notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min

