

TECHNYL® PROTECT B 50H1 NC L

DOMO Engineering Plastics - Polyamide 66/6 Copolymer

General Information

Product Description

*Previously TECHNYL B 50H1 NATURAL L

TECHNYL PROTECT B 50H1 NC L 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	• EC 1907/2006 (REACH)	• EN 45545	• UL 94
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
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	0.90	--	%	
Flow	1.1	--	%	
Water Absorption (24 hr, 73°F)	1.1	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	544000	319000	psi	ISO 527-1
Tensile Stress (Break)	10200	5800	psi	ISO 527-2
Tensile Strain (Break)	12	100	%	ISO 527-2
Flexural Modulus	551000	--	psi	ASTM D790
Flexural Modulus	537000	160000	psi	ISO 178
Flexural Strength	18100	--	psi	ASTM D790
Flexural Stress	18900	5800	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	1.4	--	ft·lb/in ²	
73°F	1.7	2.4	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	38	--	ft·lb/in ²	
73°F	33	--	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
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				IEC 60695-2-13
0.030 in	1380	--	°F	
0.06 in	1200	--	°F	
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

