TECHNYL® PROTECT AT 20 V25 BK

DOMO Engineering Plastics - *Polyethylene Terephthalate + PA 66*

General Information

Product Description

TECHNYL PROTECT AT 20 V25 BK is a Red Phosphorous flame retardant grade reinforced with 25% of glass fiber, heat stabilized, for injection moulding. This grade offers UL94V V-0 at 0.8mm and CTI 600 V associated with good mechanical properties.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight		
Additive	• Flame Retardant	• Heat Stabilizer	
Features	• Corrosion Resistant • Flame Retardant	• Good Surface Finish • Heat Aging Resistant	• Heat Stabilized
Uses	• Electrical/Electronic Applications		
Agency Ratings	• EC 1907/2006 (REACH)	• UL 94	
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
ISO Designation (ISO 16396)	• PA66+PET,GF25FR(52),MH,S14-090		
Resin ID (ISO 1043)	• PA66+PET-GF25 FR(52)		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.39	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.30	--	%	
Water Absorption (24 hr, 73°F)	0.65 to 0.75	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.5 to 1.6	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	1.33E+6	1.04E+6	psi	ISO 527-1
Tensile Stress (Break)	21800	16700	psi	ISO 527-2
Tensile Strain (Break)	2.3	2.8	%	ISO 527-2
Flexural Modulus	1.00E+6	667000	psi	ISO 178
Flexural Stress	29700	21800	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	3.4	--	ft·lb/in²	
73°F	3.6	6.2	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	17	--	ft·lb/in²	
73°F	19	24	ft·lb/in²	
Notched Izod Impact Strength (73°F)	3.4	--	ft·lb/in²	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	17	--	ft·lb/in²	ISO 180/1U
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	464	--	°F	ISO 75-2/A
Melting Temperature [2]	500	--	°F	ISO 11357-3
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.6E+15	--	ohms	IEC 62631-3-2
Volume Resistivity	4.0E+12	--	ohms·m	IEC 62631-3-1

Electric Strength	890	--	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
0.030 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	1430	--	°F	
0.06 in	1430	--	°F	
0.12 in	1560	--	°F	

Processing Information

Injection	**Dry**	**Unit**
Drying Temperature	176 to 212	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	518 to 536	°F
Middle Temperature	527 to 545	°F
Front Temperature	536 to 554	°F
Processing (Melt) Temp	518 to 554	°F
Mold Temperature	176 to 212	°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