

TECHNYL® ONE J 60X1 V15 NC

DOMO Engineering Plastics - Polyamide 66/6T Copolymer

General Information

Product Description

TECHNYL ONE J 60X1 V15 NC is a high temperature polyamide based on a non-halogenated flame retardant system, reinforced with 15% of glass fiber with best-in-class fire protection behavior, for injection moulding. This product has superior electrical performance compared to traditional high-performance plastics. Its low corrosion ensures processing tools longevity. This product, based on a high fluidity matrix, offers strong benefits in term of productivity and design freedom. The data provided are based on laboratory/experimental results. These data could be adjusted after industrial production.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight		
Additive	• Flame Retardant		
Features	• Corrosion Resistant • Flame Retardant	• Good Heat Resistance • Halogen Free	• High Flow • Low (to None) Phosphorus Content
Uses	• Connectors	• Electrical/Electronic Applications	
Agency Ratings	• EC 1907/2006 (REACH)	• EN 45545	• UL 94
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
ISO Designation (ISO 16396)	• PA66/6T,GF15FR40,M,S14-080		
Resin ID (ISO 1043)	• PA66/6T-GF15 FR(40)		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.90 to 1.1	%	
Flow	0.40 to 0.60	%	
Water Absorption (24 hr, 73°F)	0.75	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.10E+6	psi	ISO 527-1
Tensile Stress (Break)	18100	psi	ISO 527-2
Tensile Strain (Break)	3.0	%	ISO 527-2
Flexural Modulus	914000	psi	ISO 178
Flexural Stress	17400	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	3.3	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	21	ft·lb/in ²	ISO 179/1eU
Unnotched Izod Impact Strength (-22°F)	3.8	ft·lb/in ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	473	°F	ISO 75-2/A
Melting Temperature ²	532	°F	ISO 11357-3
Electrical	Nominal Value	Unit	Test Method
Electric Strength	890	V/mil	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 0		IEC 60112
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	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	1380 °F	
0.06 in	1340 °F	
0.12 in	1430 °F	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Suggested Max Moisture	0.12	%
Rear Temperature	545 to 563	°F
Middle Temperature	554 to 572	°F
Front Temperature	554 to 572	°F
Mold Temperature	194 to 230	°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, recommended water content maximum 0,15% (optimum 0,08%-0,12%)

Notes

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

² 10°C/min

