

TECHNYL® SAFE A 219WFC V50 BK

DOMO Engineering Plastics - Polyamide 66

General Information

Product Description

*Previously TECHNYL A 218W V50 BLACK FA

TECHNYL SAFE A 219WFC V50 BK is a polyamide 66, 50% glass fibre reinforced, heat stabilized with organic stabiliser for injection moulding. Designed to offer an improved hydrolysis resistance and chlorine resistance vs standard PA66, for cold, warm and hot temperature in domestic and industrial water management components including, but not limited to components in contact with drinking water where elevated levels of chlorine could be present.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Heat Stabilizer	• Hydrolysis Resistant	
Features	• Chlorine Resistant • Drinking Water Contact Acceptable • Food Contact Acceptable	• Heat Stabilized - Organic • High Dimensional Stability • High Stiffness	• Hydrolytically Stable
Uses	• Appliances • Compressor Parts • Consumer Applications	• Electrical/Electronic Applications • Industrial Applications • Pump Parts	• Water Management
Agency Ratings	• ACS • DVGW W270	• EC 1907/2006 (REACH) • KTW Guidelines BWGL	• NSF STD-61 • WRAS
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
ISO Designation (ISO 16396)	• PA66,GF500,M1,S14-160		
Resin ID (ISO 1043)	• PA66-GF50		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.55	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.75	--	%	
Flow	0.14	--	%	
Water Absorption (24 hr, 73°F)	0.60	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.36E+6	1.81E+6	psi	ISO 527-1
Tensile Stress (Break)	33400	25400	psi	ISO 527-2
Tensile Strain (Break)	2.0	2.5	%	ISO 527-2
Flexural Modulus	1.96E+6	1.45E+6	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (73°F)	6.7	8.6	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	42	40	ft·lb/in ²	ISO 179/1eU
Notched Izod Impact Strength (73°F)	6.7	7.6	ft·lb/in ²	ISO 180/1A
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	491	--	°F	ISO 75-2/A
Melting Temperature ²	505	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	--	ohms	IEC 62631-3-2



Electric Strength	890	--	V/mil	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 1	--		IEC 60112
Comparative Tracking Index	400	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.030 in	HB	--		
0.06 in	HB	--		
0.12 in	HB	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.030 in	1200	--	°F	
0.06 in	1200	--	°F	
0.12 in	1290	--	°F	
Oxygen Index	23	--	%	

Processing Information

Injection	Dry Unit
Drying Temperature	176 °F
Suggested Max Moisture	0.20 %
Rear Temperature	518 to 536 °F
Middle Temperature	536 to 554 °F
Front Temperature	536 to 572 °F
Mold Temperature	158 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

