TECHNYL® A 218W V50 BLACK FA

Polyamide 66

Solvay Engineering Plastics

Message:

TECHNYL® A 218W V50 Black FA is a polyamide 66, reinforced with 50% of glass fibre, heat stabilized, for injection moulding, with improved hydrolysis resistance. This grade offers an improved hydrolisis resistance, as well as an excellent combination between thermal and mechanical properties. It also restricts electrolytical corrosion. It is designed to be used in food contact and drinking water applications.

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight
Additive	heat stabilizer
Features	Drinking Water Contact Acceptable Good dimensional stability Rigidity, high Compliance of Food Exposure Good demoulding performance
Uses	Pump parts Large household appliances and small household appliances Valve/valve components Industrial application Consumer goods application field
Agency Ratings	ACS not rated ANSI Unspecified Rating DVGW Unspecified Rating EC 1907/2006 (REACH) KTW not rated NSF Not Rated WRAS not rated
RoHS Compliance	RoHS compliance
Appearance	Black Natural color
Forms	Particle
Processing Method	Injection molding
Resin ID (ISO 1043)	PA66-GF50

Physical	Dry	Conditioned	Unit	Test Method
Density	1.55	--	g/cm³	ISO 1183/A

Water Absorption (23°C, 24 hr)	0.60	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	16300	12500	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	230	175	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	2.0	2.5	%	ISO 527-2
Flexural Modulus (23°C)	13500	10000	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	14	18	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	88	85	kJ/m^2	ISO 179/1eU
Notched Izod Impact (23°C)	14	16	kJ/m^2	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	255	--	°C	ISO 75-2/Af
Melting Temperature	263	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity				
--	6.0E+13	1.0E+11	ohms	ASTM D257
--	1.0E+14	1.0E+12	ohms	IEC 60093
Dielectric Strength (2.00 mm)	35	30	kV/mm	IEC 60243-1
Relative Permittivity	3.70	4.00		IEC 60250
Dissipation Factor	0.010	0.11		IEC 60250
Comparative Tracking Index (Solution A)	450	450	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.8 mm	HB	--		UL 94
1.6 mm	HB	--		UL 94
3.2 mm	HB	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.8 mm	650	--	°C	IEC 60695-2-12
1.6 mm	650	--	°C	IEC 60695-2-12
3.2 mm	700	--	°C	IEC 60695-2-12
Oxygen Index	23	--	%	ISO 4589-2
Injection	Dry	Unit		
Drying Temperature	80		°C	
Suggested Max Moisture	0.20		%	
Rear Temperature	270 - 280		°C	
Middle Temperature	280 - 290		°C	

Front Temperature	280 - 300	°C
Mold Temperature	70 - 100	°C

Injection instructions

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 mini -20°C. Recommended time 2-4hInjection Advice:
For reinforced polyamide, Solvay recommends the use of steel with a high content of Carbon and purified for polishing to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). For Mould Temperature, in the case of parts where the surface roughness is required we can recommend a temperature of 90°C to 120°C with an optimum at 105°C.
The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design

Recommended distributors for this material

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