TECHNYL eXten® D 219WFC V50 BLACK

Polyamide 610

Solvay Engineering Plastics

Message:

TECHNYL eXten® D 219WFC V50 Black is a polyamide 6.10, reinforced with 50% of glass fibre, heat stabilized with organic stabilizers, for injection moulding. This grade offers lower water uptake, higher dimensional stability and enhanced chlorine resistance versus standard PA 6.6. It offers too an enhanced corrosion resistance, a reduction in lead levels versus standard metal solutions and an increase in ease of processing and part design freedom versus metal solutions and other plastics. It is used for cold and warm water plumbing components including, but not limited to, components in contact with drinking water systems globally where elevated levels of chlorine could be present.

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight
Additive	heat stabilizer
Features	Drinking Water Contact Acceptable Heat Stabilized - Organic Good dimensional stability Rigidity, high Updatable resources Good chemical resistance Compliance of Food Exposure
Uses	Pump parts 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
Forms	Particle
Processing Method	Injection molding
Resin ID (ISO 1043)	PA610-GF50

Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm³	ISO 1183/A

Water Absorption			ISO 62
23°C, 24 hr	0.24	%	ISO 62
Saturated, 23°C	2.0	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	16000	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	200	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	3.6	%	ISO 527-2
Flexural Modulus			
23°C	11800	MPa	ASTM D790
23°C	12400	MPa	ISO 178
Flexural Strength			
23°C	294	MPa	ASTM D790
23°C	310	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	15	kJ/m^2	ISO 179/1eA
Notched Izod Impact (23°C)	15	kJ/m^2	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	208	°C	ISO 75-2/Af
Melting Temperature	225	°C	ISO 11357-3
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	6.1E+16	ohms	IEC 60093
Volume Resistivity	2.6E+15	ohms·cm	IEC 60093
Dielectric Strength (2.00 mm)	26	kV/mm	IEC 60243-1
Relative Permittivity	3.70		IEC 60250
Comparative Tracking Index (Solution A)	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.6 mm	HB		UL 94
3.2 mm	HB		UL 94
Glow Wire Flammability Index (1.6 mm)	700	°C	IEC 60695-2-12
Injection	**Nominal Value**	**Unit**	
Drying Temperature	80	°C	
Suggested Max Moisture	0.20	%	
Rear Temperature	270 - 280	°C	
Middle Temperature	275 - 285	°C	
Front Temperature	280 - 290	°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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