

TECHNYL eXten® D 218CR V33 BLACK

Polyamide 66/610 Copolymer
Solvay Engineering Plastics

Message:

TECHNYL eXten® D 218CR V33 Black is a glass fiber reinforced grade based on polyamide blend of polyamide 6.10 and polyamide 66, heat stabilized, for injection moulding. This grade shows outstanding resistance to hydrolysis and chemical resistance to long life automotive coolants. It also offers an excellent crack resistance to calcium chloride road salts, good injection process ability, high surface aspect quality, and high overall mechanical and thermal properties.

General Information				
Filler / Reinforcement		Glass fiber reinforced material, 33% filler by weight		
Additive		Hydrolysis resistance		
Features		Heat Stabilized - Inorganic		
		Road Salt Resistant		
		Ultra High Glycol Resistance		
		Good dimensional stability		
		Low hygroscopicity		
		Weldable		
		Good liquidity		
		Good chemical resistance		
		Hydrolysis resistance		
		Excellent appearance		
Uses		Application in Automobile Field		
Agency Ratings		EC 1907/2006 (REACH)		
RoHS Compliance		RoHS compliance		
Appearance		Black		
Forms		Particle		
Processing Method		Injection molding		
Multi-Point Data		Isothermal Stress vs. Strain (ISO 11403-1)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Resin ID (ISO 1043)		PA610+PA66-GF33		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.35	--	g/cm³	ISO 1183/A
Water Absorption				ISO 62
23°C, 24 hr	0.30	--	%	ISO 62
Saturated, 23°C	3.6	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method

Tensile Modulus (23°C)	11300	8900	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	196	132	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	3.3	4.8	%	ISO 527-2
Flexural Modulus (23°C)	10200	8000	MPa	ISO 178
Flexural Stress (23°C)	280	220	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	15	--	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	70	--	kJ/m ²	ISO 179/1eU
23°C	94	--	kJ/m ²	ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	225	--	°C	ISO 75-2/Bf
1.8 MPa, not annealed	218	--	°C	ISO 75-2/Af
Melting Temperature	220 - 260	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+15	--	ohms · cm	IEC 60093
Dielectric Strength (2.00 mm)	34	--	kV/mm	IEC 60243-1
Comparative Tracking Index (Solution B)	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.40 mm)	HB	--		UL 94
Injection	Dry	Unit		
Drying Temperature	80		°C	
Suggested Max Moisture	0.20		%	
Rear Temperature	265 - 275		°C	
Middle Temperature	270 - 280		°C	
Front Temperature	275 - 285		°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 2-4h

Injection 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

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