TECHNYL® C 218 V50 BLACK 21N

Polyamide 6

Solvay Engineering Plastics

Message:

TECHNYL® C 218 V50 Black 21N is a polyamide PA6, reinforced with 50% of glass fibre, heat stabilized, for injection moulding. This grade offers high mechanical strength, high surface aspect by easy flow & low pressure moulding for injection moulding.

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight			
Additive	heat stabilizer			
Features	Heat Stabilized - Inorganic Good dimensional stability Rigidity, high Good liquidity			
Uses	Power/other tools Pulley Application in Automobile Field			
RoHS Compliance	RoHS compliance			
Appearance	Black			
Forms	Particle			
Processing Method	Injection molding			
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)			
Resin ID (ISO 1043)	PA6-GF50			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density	1.53	--	g/cm³	ISO 1183/A
Water Absorption (23°C, 24 hr)	0.75	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	16000	10300	MPa	ISO 527-2/1A
Tensile Strength				
Fracture, 23°C	220	--	MPa	ASTM D638
Fracture, 23°C	210	130	MPa	ISO 527-2/1A
Tensile Elongation				
Fracture, 23°C	2.5	--	%	ASTM D638
Fracture, 23°C	2.3	3.8	%	ISO 527-2
Flexural Modulus (23°C)	14000	--	MPa	ASTM D790
Flexural Strength (23°C)	190	--	MPa	ASTM D790
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**

Charpy Notched Impact Strength (23°C)	16	20	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	80	85	kJ/m²	ISO 179/1eU
Notched Izod Impact				
23°C	190	--	J/m	ASTM D256
23°C	16	22	kJ/m²	ISO 180
Unnotched Izod Impact Strength (23°C)	75	80	kJ/m²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
1.8 MPa, not annealed	215	--	°C	ASTM D648
1.8 MPa, not annealed	208	--	°C	ISO 75-2/Af
Melting Temperature	222	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+13	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+11	ohms·cm	IEC 60093
Dielectric Strength (2.00 mm)	--	22	kV/mm	IEC 60243-1
Relative Permittivity	3.80	4.50		IEC 60250
Dissipation Factor	0.020	9.0E-3		IEC 60250
Comparative Tracking Index (Solution A)	550	475	V	IEC 60112
Injection	Dry	Unit		
Drying Temperature	80		°C	
Suggested Max Moisture	0.20		%	
Rear Temperature	235 - 240		°C	
Middle Temperature	240 - 250		°C	
Front Temperature	250 - 260		°C	
Mold Temperature	60 - 90		°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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