TECHNYL® C 216 V50 NATURAL

Polyamide 6

Solvay Engineering Plastics

Message:

TECHNYL® C 216 V50 Natural is a polyamide 6, reinforced with 50% of glass fibre, for injection moulding. This grade offers high mechanical strength, good surface aspect for injection moulding.

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight
Features	Good dimensional stability Rigidity, high Good demoulding performance
Uses	Large household appliances and small household appliances Industrial application Outdoor application Consumer goods application field
Agency Ratings	EC 1907/2006 (REACH)
RoHS Compliance	RoHS compliance
Appearance	Black Natural color
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	1.56	--	g/cm³	ISO 1183/A
Water Absorption				ISO 62
23°C, 24 hr	0.75	--	%	ISO 62
Saturated, 23°C	4.5	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.6	--	%	ISO 62

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	17500	10200	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	225	145	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	2.8	5.5	%	ISO 527-2
Flexural Modulus (23°C)	16000	9000	MPa	ISO 178
Flexural Stress (23°C)	325	210	MPa	ISO 178

Impact	Dry	Conditioned	Unit	Test Method

Charpy Notched Impact Strength (23°C)	16	23	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	95	100	kJ/m²	ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	210	--	°C	ISO 75-2/Af
Melting Temperature	222	--	°C	ISO 11357-3
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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