TECHNYL STAR® SX 216 V50 BLACK

Polyamide 6

Solvay Engineering Plastics

Message:

TECHNYL STAR® SX 216 V50 Black is based on a patented high flow polyamide 6 resin (Technylstar), reinforced with 60% of glass fibre, for injection moulding. Due to its outstanding flow caracteristics, this grade allows more freedom in mould and part design versus a standard polyamide solutions.

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight
Features	Excellent appearance Rigidity, high High liquidity Good demoulding performance
Uses	Gear Industrial 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
Resin ID (ISO 1043)	PA6-GF50

Physical	Dry	Conditioned	Unit	Test Method
Density	1.55	--	g/cm³	ISO 1183/A
Water Absorption (23°C, 24 hr)	0.72	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	17000	11600	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	230	162	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	2.6	--	%	ISO 527-2
Flexural Modulus (23°C)	15500	10000	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	15	20	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	85	95	kJ/m²	ISO 179/1eU
Notched Izod Impact (23°C)	15	22	kJ/m²	ISO 180

Unnotched Izod Impact Strength (23°C)	90	100	kJ/m²	ISO 180/1U
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
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Comparative Tracking Index (Solution A)	500	--	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating				UL 94
1.6 mm	HB	--		UL 94
3.2 mm	HB	--		UL 94
Injection	**Dry**	**Unit**		
Drying Temperature	80		°C	
Suggested Max Moisture	0.20		%	
Rear Temperature	230 - 235		°C	
Middle Temperature	235 - 245		°C	
Front Temperature	245 - 250		°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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