

TECHNYL® C 256 V18 (EX PSB 197) NATURAL

Polyamide 6
Solvay Engineering Plastics

Message:

TECHNYL® C 256 V18 Natural is a polyamide PA 6 impact modified, reinforced with 18% of glass fibre, for injection moulding. This grade offers high impact strength and good mechanical properties.

General Information				
Filler / Reinforcement		Glass fiber reinforced material, 18% filler by weight		
Additive		Impact modifier heat stabilizer		
Features		Impact resistance, high Good demoulding performance		
Uses		Sporting goods		
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-GF18		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.23	--	g/cm ³	ISO 1183/A
Water Absorption (Equilibrium, 23°C, 50% RH)	2.4	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	6000	3300	MPa	ISO 527-2/1A
Tensile Strength				
Yield, 23°C	110	70.0	MPa	ASTM D638
Fracture, 23°C	120	70.0	MPa	ISO 527-2/1A
Tensile Elongation				
Fracture, 23°C	3.6	10	%	ASTM D638
Fracture, 23°C	3.5	8.7	%	ISO 527-2
Flexural Modulus (23°C)	5500	3000	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA

-30°C	7.5	--	kJ/m ²	ISO 179/1eA
23°C	13	20	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	80	--	kJ/m ²	ISO 179/1eU
23°C	75	80	kJ/m ²	ISO 179/1eU
Notched Izod Impact				ISO 180
-30°C	13	--	kJ/m ²	ISO 180
23°C	13	22	kJ/m ²	ISO 180
Unnotched Izod Impact (23°C)	75.0	80.0	kJ/m ²	ASTM D256
Unnotched Izod Impact Strength (23°C)	60	65	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	215	--	°C	ISO 75-2/Bf
1.8 MPa, not annealed	192	--	°C	ISO 75-2/Af
Melting Temperature	222	--	°C	ISO 11357-3
Flammability	Dry	Conditioned		Test Method
Flame Rating (1.6 mm)	HB	--		UL 94
Injection	Dry	Unit		
Drying Temperature	80		°C	
Suggested Max Moisture	0.20		%	
Rear Temperature	230 - 235		°C	
Middle Temperature	235 - 240		°C	
Front Temperature	240 - 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 2-4h

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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