

TECHNYL® C 216 V55 NATURAL

Polyamide 6
Solvay Engineering Plastics

Message:

TECHNYL® C 216 V55 Natural is a polyamide PA6, reinforced with 55 % 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, 55% filler by weight		
Features		Rigidity, high		
		Good demoulding performance		
Uses		Industrial application		
		Sporting goods		
		Consumer goods application field		
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-GF55		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.61	--	g/cm ³	ISO 1183/A
Water Absorption				ISO 62
23°C, 24 hr	0.70	--	%	ISO 62
Saturated, 23°C	4.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.5	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	20000	12000	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	230	140	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	2.6	4.2	%	ISO 527-2
Flexural Modulus				
23°C	15000	--	MPa	ASTM D790
23°C	18000	--	MPa	ISO 178
Flexural Strength				
23°C	300	--	MPa	ASTM D790
23°C	270	--	MPa	ISO 178

Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	85	--	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	180	--	J/m	ASTM D256
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 2-4h. 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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