

TECHNYL STAR® S 218 V30 NATURAL

Polyamide 6
Solvay Engineering Plastics

Message:

TECHNYL STAR® S 218 V30 Natural is based on a patented high flow polyamide 6 resin (TechnylStar), heat stabilized, reinforced with 30% of glass fibre, for injection moulding. Due to its outstanding flow characteristics, this grade provides a significant productivity improvement and allows more freedom in mould and part design versus a standard polyamide solutions.

General Information				
UL YellowCard		E44716-235535		
Filler / Reinforcement		Glass fiber reinforced material, 30% filler by weight		
Additive		heat stabilizer		
Features		Heat Stabilized - Inorganic		
		Good dimensional stability		
		Excellent appearance		
		High liquidity		
		Good demoulding performance		
Uses		Industrial application		
		Furniture		
		General		
		Consumer goods application field		
Agency Ratings		EC 1907/2006 (REACH)		
		UL QMFZ2		
RoHS Compliance		RoHS compliance		
Appearance		Black		
		Natural color		
Forms		Particle		
Processing Method		MuCell® Injection Molding		
		Injection molding		
Multi-Point Data		Isothermal Stress vs. Strain (ISO 11403-1)		
Resin ID (ISO 1043)		PA6-GF30		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.34	--	g/cm³	ISO 1183/A
Water Absorption				ISO 62
23°C, 24 hr	0.95	--	%	ISO 62

Equilibrium, 23°C, 50% RH	2.0	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	10000	6000	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	190	110	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	3.0	4.3	%	ISO 527-2
Flexural Modulus				
23°C	8650	4750	MPa	ASTM D790
23°C	9000	5300	MPa	ISO 178
Flexural Strength				
23°C	255	140	MPa	ASTM D790
23°C	250	160	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	12	15	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	70	80	kJ/m ²	ISO 179/1eU
Notched Izod Impact				
23°C	100	120	J/m	ASTM D256
-30°C	12	14	kJ/m ²	ISO 180
23°C	12	16	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	205	--	°C	ASTM D648, ISO 75-2/Af
Melting Temperature	222	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (Solution A)	600	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (3.2 mm)	HB	--		UL 94
Glow Wire Flammability Index (1.6 mm)	650	--	°C	IEC 60695-2-12
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 - 245		°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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Recommended distributors for this material

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