

# TECHNYL STAR® S 218L1 V30 BLACK 1N

Polyamide 6  
Solvay Engineering Plastics

Message:

TECHNYL STAR® S 218L1 V30 Black is based on a patented high flow polyamide 6 resin (TechnylStar),heat stabilized, UV 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				
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight			
Additive	heat stabilizer			
Features	Heat Stabilized - Inorganic			
	Good dimensional stability			
	Excellent appearance			
	Good UV resistance			
	High liquidity			
Uses	Good demoulding performance			
	Handle			
	Furniture			
	Application in Automobile Field			
RoHS Compliance	RoHS compliance			
Appearance	Black			
Forms	Particle			
Processing Method	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/cm <sup>3</sup>	ISO 1183/A
Water Absorption (23°C, 24 hr)	0.95	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	10500	6200	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	180	110	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	3.2	--	%	ISO 527-2
Flexural Modulus (23°C)	9500	5200	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	10	12	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	50	65	kJ/m <sup>2</sup>	ISO 179/1eU

Notched Izod Impact (23°C)	10	12	kJ/m <sup>2</sup>	ISO 180
Unnotched Izod Impact Strength (23°C)	50	60	kJ/m <sup>2</sup>	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature	222	--	°C	ISO 11357-3
Flammability	Dry	Conditioned	Unit	Test Method
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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