

TECHNYL® A 218 V25 BLACK LM

Polyamide 66
Solvay Engineering Plastics

Message:

TECHNYL® A 218 V25 Black LM is a polyamide 66, reinforced with 25% of glass fibre, heat stabilized, for injection moulding, This grade has enhanced properties for applications needing particular laser marking.

General Information				
UL YellowCard		E44716-235569		
Filler / Reinforcement		Glass fiber reinforced material, 25% filler by weight		
Additive		heat stabilizer		
Features		Heat Stabilized - Inorganic		
		Good dimensional stability		
		Good liquidity		
		Good demoulding performance		
Uses		Connector		
Agency Ratings		UL QMFZ2		
RoHS Compliance		RoHS compliance		
Appearance		Black		
		Natural color		
Forms		Particle		
Processing Method		Injection molding		
Resin ID (ISO 1043)		PA66-GF25		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.32	--	g/cm ³	ISO 1183/A
Water Absorption				ISO 62
23°C, 24 hr	0.90	--	%	ISO 62
Saturated, 23°C	6.2	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	8900	6000	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	165	100	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	3.0	6.0	%	ISO 527-2
Flexural Modulus				
23°C	7300	--	MPa	ASTM D790
23°C	7300	5000	MPa	ISO 178
Flexural Strength (23°C)	250	--	MPa	ASTM D790
Impact	Dry	Conditioned	Unit	Test Method

Charpy Notched Impact Strength (23°C)	8.0	12	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	55	78	kJ/m ²	ISO 179/1eU
Notched Izod Impact				
23°C	80	--	J/m	ASTM D256
23°C	8.5	15	kJ/m ²	ISO 180
Unnotched Izod Impact Strength (23°C)	55	70	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
1.8 MPa, not annealed	245	--	°C	ASTM D648
1.8 MPa, not annealed	250	--	°C	ISO 75-2/Af
Melting Temperature	262	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	6.0E+15	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+15	ohms · cm	IEC 60093
Dielectric Strength (2.00 mm)	32	28	kV/mm	IEC 60243-1
Relative Permittivity	3.70	4.00		IEC 60250
Comparative Tracking Index (Solution A)	600	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.40 mm	HB	--		UL 94
0.8 mm	HB	--		UL 94
1.6 mm	HB	--		UL 94
Glow Wire Flammability Index (1.6 mm)	650	--	°C	IEC 60695-2-12
Oxygen Index	23	--	%	ISO 4589-2
Injection	Dry	Unit		
Drying Temperature	80		°C	
Suggested Max Moisture	0.20		%	
Rear Temperature	270 - 280		°C	
Middle Temperature	275 - 285		°C	
Front Temperature	280 - 290		°C	
Mold Temperature	70 - 100		°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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