

TECHNYL® C 52G1 V25 GREY 2225 CF

Polyamide 6
Solvay Engineering Plastics

Message:

TECHNYL® C 52G1 V25 Grey 2225 CF is a Non-phosphorous and Non-halogenated flame retardant polyamide 6, reinforced with 25% of glass fiber, heat stabilized, for injection moulding. This flame retardant grade with excellent moulding and electrical performance.

General Information				
UL YellowCard		E44716-100221796		
Filler / Reinforcement		Glass fiber reinforced material, 25% filler by weight		
Additive		heat stabilizer		
		Flame retardancy		
Features		UV Laser Markable		
		Anti-arc		
		Phosphorus content, low (to none)		
		Halogen-free		
Uses		Electrical/Electronic Applications		
Agency Ratings		EC 1907/2006 (REACH)		
		NF F 16-101		
		UL QMFZ2		
Appearance		Grey		
Forms		Particle		
Processing Method		Injection molding		
Resin ID (ISO 1043)		PA6-GF25 FR(30)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.35	--	g/cm ³	ISO 1183/A
Water Absorption (23°C, 24 hr)	1.1	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	6850	4350	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	85.0	51.0	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	2.7	--	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	3.5	8.6	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	41	84	kJ/m ²	ISO 179/1eU

Notched Izod Impact (23°C)	4.7	--	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	210	--	°C	ISO 75-2/Bf
1.8 MPa, not annealed	170	--	°C	ISO 75-2/Af
Melting Temperature	220	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (Solution A)	550	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.8 mm	V-2	--		UL 94
1.6 mm	V-2	--		UL 94
3.2 mm	V-2	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.8 mm	960	--	°C	IEC 60695-2-12
1.6 mm	960	--	°C	IEC 60695-2-12
3.2 mm	960	--	°C	IEC 60695-2-12
French Fire Index	F2	--		NF F16-101
French Smoke Index	I4	--		NF F16-101
Injection	Dry	Unit		
Drying Temperature	80		°C	
Suggested Max Moisture	0.20		%	
Rear Temperature	230 - 235		°C	
Middle Temperature	235 - 240		°C	
Front Temperature	235 - 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:

All reinforced flame retardant compounds generate some level of abrasion/corrosion to the steel processing equipment. These issues can be worsened by using incorrect processing conditions (temperatures, residence time, moisture level ...) during the moulding process. Therefore, Solvay recommends to use the advised processing conditions detailed in this technical data sheet. For equipment that comes into contact with molten flame retarded compounds, Solvay advises to use a steel containing high chromium & high carbon content (minimum concentration of 16% Chromium) to prevent corrosion and abrasion. For the correct reference of steel associated to flame retardant compounds processing, please refer to your equipment manufacturers. For Mould Temperature, in the case of parts where the surface roughness is required we can recommend a temperature at 120°C. Of course it should be noted that this improvement in the surface appearance may be at the expense of the cycle time.

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

