TECHNYL® C 50H2 GREY 271 N

Polyamide 6

Solvay Engineering Plastics

Message:

TECHNYL® C 50H2 Grey 271 N is an unfilled Non-phosphorous and Non-halogenated flame retardant polyamide 6, heat stabilized, for injection moulding. This product, UL94 VO @ 0,4mm, offers excellent moldability together with good stiffness.

General Information	
UL YellowCard	E44716-235530
Additive	heat stabilizer Flame retardancy
Features	Phosphorus content, low (to none) Good demoulding performance Halogen-free
Uses	Electrical/Electronic Applications
Agency Ratings	EC 1907/2006 (REACH) EN 45545 NF F 16-101 UL QMFZ2
Appearance	Black Grey Natural color
Forms	Particle
Processing Method	Injection molding
Resin ID (ISO 1043)	PA6 FR(30)

Physical	Dry	Conditioned	Unit	Test Method
Density	1.16	--	g/cm³	ISO 1183/A
Water Absorption (23°C, 24 hr)	1.1	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	3500	2000	MPa	ISO 527-2/1A
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+15	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Dielectric Strength (2.00 mm)	34	30	kV/mm	IEC 60243-1
Relative Permittivity	3.50	3.90		IEC 60250

Dissipation Factor	0.020	0.060		IEC 60250
Comparative Tracking Index				IEC 60112
Solution a	600	600	V	IEC 60112
Solution B	475	--	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating (0.40 mm)	V-0	--		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
Glow Wire Ignition Temperature				IEC 60695-2-13
0.8 mm	700	--	°C	IEC 60695-2-13
1.6 mm	700	--	°C	IEC 60695-2-13
3.2 mm	700	--	°C	IEC 60695-2-13
Oxygen Index	36	--	%	ISO 4589-2
French Fire Index	F2	--		NF F16-101
French Smoke Index	I2	--		NF F16-101
European Railways Certifications				EN 45545-2
R22	HL3	--		EN 45545-2
R23	HL3	--		EN 45545-2
R25	HL3	--		EN 45545-2

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 2-4hInjection 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.

Recommended distributors for this material

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