TECHNYL STAR® S 52G1 MX25 GREY 2408

Polyamide 6

Solvay Engineering Plastics

Message:

TECHNYL STAR® S 52G1 MX25 Grey 2408 is a Non-phosphorous and Non-halogenated flame retardant grade based on a patented high flow polyamide 6 resin (TechnylStar), reinforced of 25% of mineral filler, for injection moulding. This grade offers a high fluidity as well as a robust glow wire resistance.

General Information	
Filler / Reinforcement	Mineral filler, 35% filler by weight
Additive	heat stabilizer
Features	Excellent appearance Anti-arc High liquidity Good demoulding performance
Uses	Electrical/Electronic Applications
Agency Ratings	EC 1907/2006 (REACH)
Appearance	Black Grey Natural color
Forms	Particle
Processing Method	Injection molding
Resin ID (ISO 1043)	PA6-MD25 FR(30)

Physical	Dry	Conditioned	Unit	Test Method
Water Absorption (23°C, 24 hr)	1.1	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	6800	4500	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	70.0	55.0	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	2.0	4.0	%	ISO 527-2
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	3.0	6.0	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	30	50	kJ/m^2	ISO 179/1eU
Notched Izod Impact (23°C)	3.5	--	kJ/m^2	ISO 180
Unnotched Izod Impact Strength (23°C)	28	--	kJ/m^2	ISO 180/1U
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Melting Temperature	220	--	°C	ISO 11357-3

Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating				UL 94
	V-2			
0.8 mm	V-0	--		UL 94
1.6 mm	V-2	--		UL 94
3.2 mm	V-2	--		UL 94
Glow Wire Flammability Index				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	725	--	°C	IEC 60695-2-13
1.6 mm	960	--	°C	IEC 60695-2-13
Oxygen Index	29	--	%	ISO 4589-2
Injection	**Dry**	**Unit**		
Drying Temperature	80		°C	
Suggested Max Moisture	0.20		%	
Rear Temperature	230 - 235		°C	
Middle Temperature	235 - 240		°C	
Front Temperature	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 2-4hInjection 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.
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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