Solvay Specialty Polymers Cogegum® GFR/340-HP Polyolefin, Unspecified (Unverified Data**)

Category : Polymer , Thermoplastic , Polyolefin

Material Notes:

Cogegum® XLPO-HFFR - Crosslinkable Halogen Free Fire Retardant compound Silane grafted compound moisture curable by addition of a catalyst masterbatch (Sioplas® method). It consists of a polyolefin base containing a fire retardant system that contributes to give the cable self-extinguish properties without halogenidric acids evolution, toxic and corrosive gases and dark smoke emission. This material complies with RoHS requirements. Standard complying - EN 50363-0 G10; EN 50363-1 EI3, EN50363-5 EI8; EN50363-6 EM10; IEC 60092/351 HF90; Cenelec HD 624.6; VDE 0266 HXI1, HXM1; VDE 0250 HI3; VDE 0207 HJ1, HM1Additional Information: Tests reported are performed on pressed or extruded specimens, added with 5% of Catalyst CT/5-LR UV and crosslinked in hot water at 95°C for 6 hours Coloring - EVA or PE based color masterbatches added at 1.2-1.5% by weight; in order to prevent precrosslinking during processing, predrying of colour masterbatch is suggested (4-6 hours at 50-60°C) Storage - The product must be stored under the following conditions: -- closed and undamaged bags -- ambient temperature not exceeding 30°C -- avoid direct exposure to sunlight and weathering - Product alterations could occur due to extended period of storage - Shelf life: 9 months - Solvay Specialty Polymers accepts no liability of any kind in case the above mentioned conditions are not fulfilled Packaging - 25 kg moisture-resistant bags on 1375 kg pallet - 750 kg carton boxExtrusion Notes: Processing - Cogegum® GFR/340 HP pregrafted base must be added with CT/5-LR UV masterbatch to promote curing. Catalyst dosage is 5% by weight and blending must be done just before using (2-3 hours max.), preferably in the extruder hopper. Catalyst doesn't need any predrying if stored in dry conditions in the original closed bags; in case, predrying can be made at 50-60°C for 4-8 hours - The pregrafted base compound is sensible to moisture; open bags must be used within 4 hours. Pregrafted base cannot be predried Extrusion equipment - standard extruders for thermoplastics equipped with low compression screw (1:1.2-1.4 compression ratio and 25 L/D ratio are suggested), and an adequate barrel thermoregulation - don't use screw thermoregulation - filter net: none - compression tools suggested Curing - by immersion in hot water at 60-70°C - by exposure in ambient, crosslinking time depends on ambient temperature and relative humidity - in all cases curing time depends on insulation thickness; for 0.7-1.2 mm wall thickness 3-6 hours are generally necessary in case of forced curing in hot waterInformation provided by Solvay Specialty Polymers.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Cogegum-GFR340-HP-Polyolefin-Unspecified-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.35 g/cc	1.35 g/cc	ASTM D792
ESCR 10% Igepal®	>= 1000 hour @Thickness 3.00 mm, Temperature 50.0 °C	>= 1000 hour @Thickness 0.118 in, Temperature 122 °F	Condition A, Compression Molded; ASTM D1693
Melt Flow	4.0 g/10 min @Load 21.6 kg, Temperature 190 °C	4.0 g/10 min @Load 47.6 lb, Temperature 374 °F	without Catalyst MB addition; Internal Method

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	36	36	ISO 868

Mechanical Properties	Metric	English	Comments
Elongation at Break	240 %	240 %	IEC 60811

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	300 °C	572 °F	Temperature Index (Burning); NES 715
Oxygen Index	31 %	31 %	ASTM D2863
Shrinkage	<= 4.0 % @Temperature 120 °C, Time 3600 sec	<= 4.0 % @Temperature 248 °F, Time 1.00 hour	Hot Air Shrinkage; IEC 60811

Electrical Properties	Metric	English	Comments
Volume Resistivity	5.40e+14 ohm-cm @Temperature 90.0 °C	5.40e+14 ohm-cm @Temperature 194 °F	IEC 60502
	1.30e+15 ohm-cm @Temperature 20.0 °C	1.30e+15 ohm-cm @Temperature 68.0 °F	IEC 60502
Insulation Resistivity	2000 Megaohm/1000 m @Temperature 90.0 °C	6560 Megaohm/1000 ft @Temperature 194 °F	IEC 60502
	5000 Megaohm/1000 m @Temperature 20.0 °C	16400 Megaohm/1000 ft @Temperature 68.0 °F	IEC 60502

Processing Properties	Metric	English	Comments
Processing Temperature	160 - 180 °C	320 - 356 °F	Collar Temperature
Zone 1	130 - 150 °C	266 - 302 °F	
Zone 2	140 - 160 °C	284 - 320 °F	
Zone 3	140 - 160 °C	284 - 320 °F	
Zone 4	150 - 170 °C	302 - 338 °F	
Die Temperature	170 - 220 °C	338 - 428 °F	
Head Temperature	160 - 180 °C	320 - 356 °F	

Descriptive Properties	Value	Comments
	-1% Change in Tensile	

Descriptive Properties	Value	Comments
1N NaOH Solution Immersion Test, 23°C, 168 hr	Strength	IEC 60811
	-19% Change in Tensile Elongation	IEC 60811
1N Oxalic Acid Immersion Test, 23°C, 168 hr	-12% Change in Tensile Elongation	IEC 60811
	-4% Change in Tensile Strength	IEC 60811
Availability	Asia Pacific	
	Europe	
	North America	
Bending Test	Pass	-40°C; IEC 60811
Calorific Potential	19.4 MJ/kg	ISO 1716; Upper (gross)
Corrosive Gas in Smoke	< 10.0 µS/mm	Conductivity IEC 60754-2
	pH > 4.30	
Features	Crosslinkable	
	Flame Retardant	
	Halogen Free	
	Low Smoke Emission	
	Low Toxicity	
	Self Extinguishing	
Generic	Polyolefin, Unspecified	
Halogenidric Acid Emissions	< 0.10%	
Hot Pressure Test	< 50%	140°C; max penetration, K=0.6; IEC 60811
	< 50%	150°C; max penetration, K=1; IEC 60811
Hot Set (%)	0	250°C, Permanent elongation after cooling; 20 N/cm²
	50	250°C, Elongation under load; 20 N/cm²
Impact Test; IEC 60811	Pass	-40°C
Mechanical Properties After Aging in Air Bomb, 0.55 MPa, 127°C, 40 hr	-10	IEC 60811, %Change in Tensile Elongation
	16	IEC 60811, %Change in Tensile Strength

Descriptive Properties	Value	Comments
Mechanical Properties After Aging in Air Oven, 150°C, 240 hr		IEC 60811, %Change in Tensile Strength
	-4	IEC 60811, %Change in Tensile Elongation
RoHS Compliance	RoHS Compliant	
Uses	Cable Jacketing	
	Low Voltage Insulation	
	Wire & Cable Applications	
Water Absorption (mg/cm²)	< 4.00	100°C; 24 hr; IEC 60811

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