

Solvay Specialty Polymers Cogegum® GFR/350 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 50363-5 EI5, EI8; EN 50363-0 G10; EN 50363-6 EM10; VDE 0207/23 HJ1, HM1; VDE 0250/503 HI3; VDE 0266 HX11, HXM1; IEC 60092/351 HF 90; Cenelec HD 624.6 Additional Information: Tests reported are performed on pressed or extruded specimens, added with 5% of Catalyst CT/2-LR 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 box Extrusion Notes: Processing - COGEGUM® GFR/350 must be added with Catalyst CT/2-LR 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. The use of 5% of Catalyst CT/7-LR UV is suggested if high resistance against UV-VIS radiation and long term ageing is required. 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 water Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Cogegum-GFR350-Polyolefin-Unspecified-nbspUnverified-Data.php

| Physical Properties | Metric | English | Comments |
|---------------------|--|--|--|
| Specific Gravity | 1.40 g/cc | 1.40 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 | 3.5 g/10 min @Load 21.6 kg, Temperature 190 °C | 3.5 g/10 min @Load 47.6 lb, Temperature 374 °F | without Catalyst MB addition; Internal Method |

| Mechanical Properties | Metric | English | Comments |
|-----------------------|--------|---------|----------|
|-----------------------|--------|---------|----------|

| Hardness, Shore D Mechanical Properties | 38 Metric | 38 English | ISO 868 Comments |
|--|--------------|---------------|---------------------|
| Tensile Strength at Break | 12.3 MPa | 1780 psi | IEC 60811 |
| Elongation at Break | 210 % | 210 % | IEC 60811 |

| Thermal Properties | Metric | English | Comments |
|----------------------------------|---|--|--------------------------------------|
| Maximum Service Temperature, Air | 300 °C | 572 °F | Temperature Index (Burning); NES 715 |
| Oxygen Index | 38 % | 38 % | ASTM D2863 |
| Shrinkage | <= 4.0 % @Temperature 100 °C, Time 3600 sec | <= 4.0 % @Temperature 212 °F, Time 1.00 hour | Hot Air Shrinkage; IEC 60811 |

| Electrical Properties | Metric | English | Comments |
|------------------------|---|--|-----------|
| Volume Resistivity | 5.40e+13 ohm-cm @Temperature 90.0 °C | 5.40e+13 ohm-cm @Temperature 194 °F | IEC 60502 |
| | 6.70e+14 ohm-cm @Temperature 20.0 °C | 6.70e+14 ohm-cm @Temperature 68.0 °F | IEC 60502 |
| Insulation Resistivity | 200 Megaohm/1000 m @Temperature 90.0 °C | 656 Megaohm/1000 ft @Temperature 194 °F | IEC 60502 |
| | 2500 Megaohm/1000 m @Temperature 20.0 °C | 8200 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 | 120 - 140 °C | 248 - 284 °F | |
| Zone 2 | 130 - 150 °C | 266 - 302 °F | |
| Zone 3 | 140 - 160 °C | 284 - 320 °F | |
| Zone 4 | 150 - 170 °C | 302 - 338 °F | |
| Die Temperature | 180 - 210 °C | 356 - 410 °F | |
| Head Temperature | 160 - 180 °C | 320 - 356 °F | |

| Descriptive Properties | Value | Comments |
|------------------------|-------|----------|
|------------------------|-------|----------|

| Availability Descriptive Properties | Asia Pacific Value | Comments |
|--|----------------------------|--|
| | Europe | |
| | North America | |
| Bending Test | No cracks | -15°C; IEC 60811 |
| Calorific Potential | 18.6 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% | 100°C; max penetration, K=1; IEC 60811 |
| Hot Set (%) | 0 | 250°C, Permanent elongation after cooling; 20 N/cm ² |
| | 50 | 250°C, Elongation under load; 20 N/cm ² |
| Impact Test; IEC 60811 | No cracks | -15°C |
| Mechanical Properties After Aging in Air Bomb, 0.55 MPa, 127°C, 40 hr | -15 | IEC 60811, %Change in Tensile Elongation |
| | 18 | IEC 60811, %Change in Tensile Strength |
| Mechanical Properties After Aging in Air Oven, 135°C, 168 hr | 10 | IEC 60811, %Change in Tensile Strength |
| | -5 | IEC 60811, %Change in Tensile Elongation |
| RoHS Compliance | RoHS Compliant | |
| Uses | Cable Jacketing | |
| | Low Voltage Insulation | |

| Descriptive Properties | Value Wire & Cable Applications | Comments |
|--|---------------------------------------|-------------------------|
| Water Absorption (mg/cm ²) | < 4.00 | 100°C; 24 hr; IEC 60811 |

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China