

Cogegum® GFR/360

Polyolefin

Solvay Specialty Polymers

Message:

Cogegum®XLPO-HFFR-crosslinkable halogen-free flame retardant composite

Silane graft compound by adding catalyst masterbatch (SIOPLAS® Method) for moisture curing. Including polyolefin matrix containing flame retardant system, so that the cable has a self-extinguishing function, does not carry out halogen acid evolution, does not release toxic and corrosive gases and black smoke. This material meets the requirements of RoHS Directive.

meets the following standards:-EN 50363-0 M2,M4; EN 50363-5 EI8; EN 50363-6 EM8, EM10; EN 50264 EI101..EI109,EM101..EM104; IEC 60092/351 HF90;IEC 60092 SHF2;Cenelec HD 624.6;VDE 0266 HX11,HXM1; VDE 0250 HI3;VDE 0207 HJ1, HM1, HM3; BS 7655 LRS1, SW3.

General Information			
Features	Low smoke		
	Low toxicity		
	Crosslinkable		
	Fuel resistance		
	Oil resistance		
	Halogen-free		
	Self-extinguishing		
	Flame retardancy		
Uses	Low voltage insulation		
	Cable sheath		
	Wire and cable applications		
RoHS Compliance	RoHS compliance		
Physical	Nominal Value	Unit	Test Method
Specific Gravity ¹	1.43	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ² (190°C/21.6 kg)	6.5	g/10 min	Internal method
Water Absorption			IEC 60811
168 hours: 70°C	0.210	mg/cm ²	IEC 60811
24 hs : 100°C	0.530	mg/cm ²	IEC 60811
Thermoset ³			IEC 60811
250°C, maximum permanent elongation after cooling	0.0	%	IEC 60811
250°C, load elongation at break	70	%	IEC 60811
Hot pressing test-Maximum permeability, K = 1(100°C)		%	IEC 60811
Bending test (-40°C)	No cracking		IEC 60811
Insulation resistance constant			IEC 60502
20°C	4000	Mohms · km	IEC 60502
90°C	500	Mohms · km	IEC 60502

Halogen-containing acid emission		%	IEC 60754-1
latent heat energy	18.5	MJ/kg	ISO 1716
Temperature Index (Combustion)	290	°C	NES 715
Corrosive gases in flue gas			IEC 60754-2
pH	> 4.30		IEC 60754-2
Conductivity		μS/mm	IEC 60754-2
Ring temperature	150 - 170	°C	
Head Temperature	150 - 170	°C	
Environmental Stress-Cracking Resistance (condition a, 50°C, 3.00mm, 10% Igepal, molding)	> 1000	hr	ASTM D1693
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	49		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	12.5	MPa	IEC 60811
Tensile Elongation (Break)	170	%	IEC 60811
Aging	Nominal Value	Unit	Test Method
0.5MPa, change of mechanical properties after air bomb aging test, 127°C, 40 hr			IEC 60811
Tensile strength change	20	%	IEC 60811
Change in tensile elongation	-15	%	IEC 60811
Changes in mechanical properties after hot air aging test, 135°C, 168 hr			IEC 60811
Tensile strength change	12	%	IEC 60811
Change in tensile elongation	10	%	IEC 60811
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity			IEC 60502
20°C	1.1E+15	ohms·cm	IEC 60502
90°C	1.4E+14	ohms·cm	IEC 60502
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	35	%	ASTM D2863
Chemical Resistance	Nominal Value	Unit	Test Method
IRM 902 oil impregnation test, 100°C, 168 hr			IEC 60811
Tensile strength change	-22	%	IEC 60811
Change in tensile elongation	6	%	IEC 60811
IRM 903 oil impregnation test, 70°C, 168 hr			IEC 60811
Tensile strength change	-12	%	IEC 60811
Change in tensile elongation	11	%	IEC 60811
NaOH solution impregnation test, 23°C, 168 hr			IEC 60811
Tensile strength change	3	%	IEC 60811
Change in tensile elongation	-11	%	IEC 60811
Oxalic acid impregnation test, 23°C, 168 hr			IEC 60811

Tensile strength change	-18	%	IEC 60811
Change in tensile elongation	-24	%	IEC 60811

Additional Information

测试报告采用挤压或挤出样本获得,添加了 5% 的Catalyst CT/2-HP,在95°C热水中交联6小时.着色
EVA 或PE类母粒按重量添加 1.2-1.5%;为了防止加工过程中产生预交联,建议预烘干色母粒(50-60°C下4-6小时).

存储

产品必须按下列条件存储:

--密封,包装袋完好

环境温度不超过30°C

--避免在阳光下曝晒,或露天放置

存放时间过长会造成产品性状改变.

保质期: 9个月

如果没有满足上述条件,苏威特种聚合物不承担任何责任.

包装:

采用防潮袋包装. 每袋25 kg,每只货板堆放1375kg.

每只纸箱750 kg

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	130 - 150	°C
Cylinder Zone 2 Temp.	140 - 160	°C
Cylinder Zone 3 Temp.	140 - 170	°C
Cylinder Zone 4 Temp.	140 - 170	°C
Die Temperature	160 - 200	°C

Extrusion instructions

加工: - Cogegum® GFR/360预接枝基体树脂必须加用 CT/2-HP 或 CT/2-HP

UV母粒促进固化.催化剂用量为混合物重量的5%,应在挤塑加工前,2-3小时之内进行配混.

最好用挤出机料斗混合.如果催化剂用原始包装密封存储于干燥环境不需要任何预干燥.如需预干燥,可以在50-60°C温度下干燥4-8小时.

预接枝基体树脂混和物容易受潮,开袋后需在4小时内使用.预接枝基体树脂不可以预先干燥. 挤塑设备:

—热塑性塑料标准挤出机,低压缩比(建议压缩比:1:1.2-1.4,L/D:25,恰当调节机筒温度,螺杆较长,需减少催化剂用量.

无需调节螺杆温度

-滤网:无

建议采用压缩装置 固化: -浸入60-70°C温水中 -暴露于环境中,交联时间取决于环境温度和相对湿度

-不管在什么情况下,固化时间都取决于保温厚度,如在温水中强行固化,壁厚 0.7-1.2 mm ,一般需要 3~6 小时.

NOTE

- 23°C
- The test was performed without adding catalyst MB
- 20 N/cm²

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