AEI SX-0670:CM424

Crosslinked Polyethylene

AEI Compounds Limited

Message:

Highly flexible, silane crosslinkable, low-smoke, low-toxicity, halogen-free compound for insulation and sheathing
A very flexible silane cross-linkable flame-retardant low-smoke halogen-free compound, which has been developed to meet the requirements of limited toxic and corrosive fume emission.
This compound is designed for use as both and insulation and sheathing in flexible cords used for appliances. It can also be used as a sheathing material for general power cable use here a combination of high flexibility and good hot deformation characteristics is required.
CM424 catalyst masterbatch is normally added at 5% to 95% of SX-0670 graft.

General Information			
Additive	Flame retardancy		
Features	Low smoke Crosslinkable Good flexibility Halogen-free Flame retardancy		
Uses	Flame Retardant Insulation Flame Retardant Jacketing Cable sheath Electrical wire sheath material Wire and cable applications		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS compliance		
Forms	Particle		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.42	g/cm³	BS 2782 620A
Melt Mass-Flow Rate (MFR) (150°C/21.6 kg)	4.0	g/10 min	Internal method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress	8.50	MPa	IEC 60811-1-1
Tensile Strain (Break)	270	%	IEC 60811-1-1
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength			IEC 60811-1-2
70°C, 168 hr, in water	-10	%	IEC 60811-1-2
100°C, 168 hr	22	%	IEC 60811-1-2
Change in Tensile Strain at Break			IEC 60811-1-2
70°C, 168 hr, in water	-15	%	IEC 60811-1-2

100°C, 168 hr	-10	%	IEC 60811-1-2
Thermal	Nominal Value	Unit	Test Method
Deformation (80°C)	pass		IEC 60811-3-1
Thermoset [1]			IEC 60811-2-1
Elongation under load, 20N/cm^2 : 200°C	40	%	IEC 60811-2-1
Permanent elongation after cooling	0.0	%	IEC 60811-2-1
Temperature index	270	°C	ISO 4589-3
Head Temperature	160	°C	
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	30	%	ISO 4589-2

Additional Information

Crosslinking or cure: A satisfactory cure can be obtained either by immersion in hot water or exposure to low pressure stream at a temperature up to 65°C.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	130	°C
Cylinder Zone 2 Temp.	140	°C
Cylinder Zone 3 Temp.	145	°C
Cylinder Zone 4 Temp.	150	°C
Die Temperature	160	°C

Extrusion instructions

Many modern thermoplastic extruders will process the material although a screw designed to give good homogenisation without excessive shear (which could cause unacceptable increases in melt temperature) should be used. An extruder with an L/D ratio (length/diameter) of 15-24 and an extruder screw with a compression ratio 1.2:1 to 2:1 are recommended.

NOTE

1.	Cure assessment by hot set test (forced cured at 80°C in water)

Recommended distributors for this material

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