AEI CT09-38:CT06-81A

Crosslinked Polyethylene

AEI Compounds Limited

Message:

Oil resistant, flexible, halogen free, flame-retardant, silane crosslinkable insulation and sheathing for cable applications
This is a flame-retardant, silane crosslinkable, flexible polyolefin compound curable by exposure to moist conditions. The graft component CT09-38 is mixed with a crosslinking catalyst masterbatch CT06-81A generally in the ratio 97:3.
The CT09-38:CT08-81A compound has been developed to meet the requirements of IEC 92-359 SHF2 and EN50264 EM104 ship wiring and railway standards. The product shows good flexibility and confers tough sheathing.

General Information			
Additive	Flame retardancy		
Features	Crosslinkable Good flexibility Oil resistance Halogen-free Flame retardancy		
Uses	Cable sheath Wire and cable applications		
Agency Ratings	EC 1907/2006 (REACH) EN 50264 EM104 IEC 60092-359 SHF2		
RoHS Compliance	RoHS compliance		
Forms	Particle		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.51	g/cm³	BS 2782 620A
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	1.5	g/10 min	Internal method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress	10.0	MPa	IEC 60811-1-1
Tensile Strain (Break)	140	%	IEC 60811-1-1
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength			
100°C, 24 hr, in IRM 902 oil	-26	%	
100°C, 72 hr, in IRM 902 oil	-30	%	
120°C, 168 hr	25	%	IEC 60811-1-2
Change in Tensile Strain at Break			
100°C, 24 hr, in IRM 902 oil	-25	%	

100°C, 72 hr, in IRM 902 oil	-24	%	
120°C, 168 hr	-10	%	IEC 60811-1-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Thermoset [1]			IEC 60811-2-1
Elongation under load, 20N/cm^2 : 200°C	60	%	IEC 60811-2-1
Permanent elongation after cooling	5.0	%	IEC 60811-2-1
Halogen Acid Gas Evolution		%	IEC 60754-1
Head Temperature	160	°C	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	33	%	ISO 4589-2
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Crosslinking or Cure: A satisfactory cure can also be obtained either by immersion in hot water or exposure to low pressure steam at a temperature up to 75°C.			
Extrusion	**Nominal Value**	**Unit**	
Cylinder Zone 1 Temp.	100	°C	
Cylinder Zone 2 Temp.	130	°C	
Cylinder Zone 3 Temp.	145	°C	
Cylinder Zone 4 Temp.	155	°C	
Die Temperature	165	°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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