

AEI SX523:CM493 and SX523:CM497

Low Density Polyethylene

AEI Compounds Limited

Message:

UV stabilised silane crosslinkable polyethylene compound for "Câble Torsadé" overhead power cable insulation

This is a chemically crosslinkable polyethylene compounds for insulation of cables where resistance to ultra-violet radiation is required. The material is carbon loaded and possesses excellent extrusion properties at high output rates. The graft component SX523 is mixed with a crosslinking catalyst masterbatch CM493 or CM497 generally in the ratio 95:5 and is curable by exposure to moist conditions.

The compound has been specially developed for the "Câble Torsadé" NFC 33-209 specification for overhead power cable applications.

General Information			
Additive	UV stabilizer		
Features	Good UV resistance		
	Crosslinkable		
Uses	Low voltage insulation		
	Wire and cable applications		
Agency Ratings	EC 1907/2006 (REACH)		
	NF C 33-209		
RoHS Compliance	RoHS compliance		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.950	g/cm ³	BS 2782 620A
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress	18.0	MPa	IEC 60811-1-1
Tensile Strain (Break)	450	%	IEC 60811-1-1
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength (150°C, 240 hr)	20	%	IEC 60811-1-2
Change in Tensile Strain at Break (150°C, 240 hr)	-18	%	IEC 60811-1-2
Thermal	Nominal Value	Unit	Test Method
Thermoset ¹			IEC 60811-2-1
Elongation under load, 20N/cm ² : 200°C	80	%	IEC 60811-2-1
Permanent elongation after cooling	5.0	%	IEC 60811-2-1
Power factor-50Hz(23°C)	0.00170		IEC 60250
Head Temperature	200	°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (20°C)	> 1.5E+16	ohms · cm	IEC 60502
Relative Permittivity (23°C, 50 Hz)	3.47		IEC 60250

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	130	°C
Cylinder Zone 2 Temp.	150	°C
Cylinder Zone 3 Temp.	170	°C
Cylinder Zone 4 Temp.	190	°C
Die Temperature	210	°C

Extrusion instructions

Most modern thermoplastic extruders will process SX523:CM493 compounds, particularly if a screw suitable for polyethylene extrusion is available.

NOTE

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

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