AEI SX554:CM493 and SX554:CM497

Ethylene Propylene Diene Terpolymer

AEI Compounds Limited

Message:

Flexible, silane crosslinkable, EPDM for low and medium voltage cable insulation

This is a silane crosslinkable rubber compound, curable when exposed to moist conditions. The compound is processed in the same way as a non-curable rubber having good extrusion properties at high output rates. The graft component SX554 is mixed with a crosslinking catalyst masterbatch CM493 or CM497 generally in the ratio 95:5. Compound SX554:CM493 or CM497 has been approved for use at 1kV and has found uses up to 10kV. It is highly flexible and enables the production of soft rubber cables without the use of continuous vulcanization equipment.

General Information			
Features	Crosslinkable		
	Good flexibility		
Uses	Low voltage insulation		
	Wire and cable applications		
	Medium voltage insulation		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS compliance		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.900	g/cm³	BS 2782 620A
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress	9.50	MPa	IEC 60811-1-1
Tensile Strain (Break)	420	%	IEC 60811-1-1
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength (135°C, 168 hr)	20	%	IEC 60811-1-2
Change in Tensile Strain at Break (135°C,			
168 hr)	8.0	%	IEC 60811-1-2
Thermal	Nominal Value	Unit	Test Method
Thermoset ¹			IEC 60811-2-1
Elongation under load, 20N/cm ² : 200°C	100	%	IEC 60811-2-1
Permanent elongation after cooling	0.0	%	IEC 60811-2-1
Power factor-50Hz(23°C)	0.00160		IEC 60250
Ozone Resistance	pass		IEC 60811-2-1
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (20°C)	> 1.0E+16	ohms·cm	IEC 60502
Relative Permittivity (23°C, 50 Hz)	2.29		IEC 60250
Additional Information	Nominal Value		Test Method

Crosslinking or cure: A satisfactory cure can be obtained either by immersion in hot water or exposure to low pressure steam at atemperature up to 70°C.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	130	°C
Cylinder Zone 2 Temp.	150	°C
Cylinder Zone 3 Temp.	180	°C
Cylinder Zone 4 Temp.	190	°C
Die Temperature	200	°C
Extrusion instructions		

Most modern thermoplastic extruders will process SX554:CM493 compound although screw designed to give good homogenisation without excessive shear is recommended. Both polyethylene and PVC screws have given satisfactory results

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

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