# AEI SX490:CM401 and SX490:CM401-2

## Low Density Polyethylene

#### **AEI Compounds Limited**

#### Message:

UV stabilized silane crosslinkable polyethylene compound for aerial cables

This is a silane crosslinkable polyethylene compound, curable by exposure to moist conditions, and possessing excellent extrusion properties at high output rates. The graft component SX490 is mixed with a crosslinking catalyst masterbatch CM401 or CM401-2 generally in the ratio 95:5. The compound contains 2.5% carbon and has been specially developed for insulated "overhead" or aerial cables of the bunched type, and enables full compliance with the German specification VDE 0274.

It is advisable to use CM401-2 for less than 1mm thin wall applications; this is normally added at 10% to 90% graft.

General Information				
Additive	UV stabilizer			
Features	Good UV resistance			
	Crosslinkable			
Uses	Low voltage insulation			
	Wire and cable applications			
Agency Ratings	EC 1907/2006 (REACH)			
	VDE 0274			
RoHS Compliance	RoHS compliance			
Forms	Particle			
Processing Method	Extrusion			
Physical	Nominal Value	Unit	Test Method	
Density	0.930	g/cm³	BS 2782 620A	
Carbon Black Content	2.5	%	BS 2782	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Stress	17.0	MPa	IEC 60811-1-1	
Tensile Strain (Break)	380	%	IEC 60811-1-1	
Aging	Nominal Value	Unit	Test Method	
Change in Tensile Strength (135°C, 168 hr)	5.0	%	IEC 60811-1-2	
Change in Tensile Strain at Break (135°C, 168 hr)	-5.0	%	IEC 60811-1-2	
Thermal	Nominal Value	Unit	Test Method	
Thermoset <sup>1</sup>			IEC 60811-2-1	
Elongation under load, 20N/cm <sup>2</sup> : 200°C		%	IEC 60811-2-1	
Permanent elongation after cooling	0.0	%	IEC 60811-2-1	
Power factor-50Hz(23°C)	8.00E-4		IEC 60250	
Head Temperature	200	°C		
Electrical	Nominal Value	Unit	Test Method	

Volume Resistivity (20°C)	> 1.0E+16	ohms·cm	IEC 60502
Relative Permittivity (23°C, 50 Hz)	2.70		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 SX490:CM401 & CM401-2 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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