

DuPONT EXITS GLOBAL HYPALON BUSINESS

The recent news flash from DuPont that it is shuttering its Beaumont, Texas Hypalon facility by June 30, 2009 shocked the wire and cable industry.

Hypalon, DuPont's trade name for chlorosulfonated polyethylene or CSPE, the base polymer in Okolon, provided the fundamental characteristics for one of the most highly engineered performance wire and cable jackets in the industry.

Since CSPE is an elastomeric, thermosetting jacket, the predominant alternative will be a jacket based on an elastomeric, thermosetting CPE resin. Fortunately, Okonite has utilized thermosetting CPE jackets for customer requirements for over 30 years.

Historically, it generally costs more to formulate a CPE based compound to achieve the properties of Hypalon compounds, particularly in the area of flame retardancy. In 2005, Okonite qualified insulated cables for Nuclear Power Generating Stations to the latest IEEE 323 and 383 - 2003 specifications. These cables, from 600 volt power and control, to medium voltage power, were jacketed with thermosetting CPE. These cables performed to the highest thermal aging and flammability requirements in the industry.

These two jacket materials have very similar

properties. The accompanying comparison sheet demonstrates the similarities. Not only are the physical and electrical properties similar, the two jacket materials are very similar in appearance.

Although the two thermoset jackets are very similar, Okolon TS-CPE does have some advantages:

- Okolon TS-CPE has better accelerated thermal aging properties. This difference was substantiated in the latest Class 1E cable qualification program.
- Okolon TS-CPE also has better cold temperature properties. Cables with Okolon TS-CPE pass a -35°C cold bend test.
- Unlike Okolon CSPE, the curative in Okolon TS-CPE does not require a tinned coated shield tape. More economical bare copper tapes can be utilized in shielded cable designs.

Okonite will be transitioning its Okolon products from CSPE to TS-CPE during the next year. You can be certain that the integrity and the history of proven field service of Okolon TS-CPE jackets will provide the highest product performance expected from Okonite cables.

W. R. Kegerise
V.P. Research &
Process Development

J. Cancelosi
Manager Application
Engineering



Ramsey, New Jersey 07446

COMPARISON OF PHYSICAL AND ELECTRICAL CHARACTERISTICS BETWEEN OKOLON (CSPE) AND (TS-CPE) JACKETS

When samples are treated in accordance with ICEA methods, as applicable, the vulcanized thermoset Okolon jackets shall meet the following values:

	<u>Guaranteed Values</u>	
	CSPE	TS-CPE
<u>Physical Requirements Before Aging</u>		
Tensile Strength, min. psi	1800	1800
Tensile Strength at 200% Elongation, min., psi	500	800
Elongation at Rupture, min. %	300	300
Set, max. %	30	50
<u>Physical Requirements After Aging</u>		
After 168 hours in Air Oven Test at 121°C		
Tensile Strength, % of Unaged Value	85	85
Elongation, % of Unaged Value	50	70
After 168 hours in Air Oven Test at 100°C		
Tensile Strength, min. % of Unaged Value	85	85
Elongation, min., % of Unaged Value	65	70
<u>Oil Immersion, 18 Hours @ 125°C, ASTM #2 Oil</u>		
Tensile Strength, min. % of unaged value	60	60
Elongation, min. % of unaged value	60	60
<u>Mechanical Water Absorption</u>		
7 days, 70°C water mg/sq. in. - max.	20	20
<u>Oxygen Index, %</u>		
	30	30
<u>Electrical Requirements</u>		
Specific Resistivity, min., Megohms	200,000	
<u>Cold Bend</u>		
After 24 hours @ -25°C	No Cracks	No Cracks (-35°C)
<u>Flame Test, Completed Cable in Vertical Tray</u>		
IEEE Standard 383-1974	No Propagation	