CAPAUTE CHEMICAL
Accelerating customers' success!

Technical Data Sheet

Capatue™ SLC-VS963

Abstract

Formulated silane (also called as silane cocktail) **SLC-VS963** is a fully stabilized crosslinking formula (vinyl silane, peroxide initiator, Tin catalyst, antioxidants and metal deactivator) for the manufacture of crosslinked polyethylene LV & MV cables & wire using the Monosil one step process. It provides excellent performance on equipment designed for Monosil technology.

Equivalents

Silcat ® VS -963 from Momentive (formerly OSi Specialties)

Typical Properties

Index	Value
Appearance	Yellowish clear liquid.
Specific Gravity g/cm^3, @ 20℃	0.980
Viscosity, mPa s (cP), @ 20 ℃	3.5
Flash Point, Tag Closed Cup, ℃	25

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Key features

1. SLC-VS963 can be used with a wide range of non-stabilized PE resin grades for optimum cost effectiveness.

2. With a suitable resin, insulated copper cables cross-linked with SLC-VS963 can go through the IEC aging test of 7 days at 135℃.

3. A high onset temperature for grafting improves process stability and minimizes pre-grafted / cross-linked particles in the insulation layer.

Benefits of Silane Versus Radiation or Peroxide Crosslinking

Low capital investment

Low operating costs

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Higher productivity

Processing versatility

Thick, thin or variable thickness possible

Complex shapes possible

Wider processing latitude(control of premature crosslinking)

Useful with filled composites

Reaction Sequence

Moisture content of the PE resin must be less than 200 ppm. In hot and humid countries pre-drying of the resin at 70℃ by means of an air desiccator is highly recommended.

Grafting: Optimum addition levels for a given application must be determined experimentally. Data collected on Nextrom extruders indicate that the dosage levels of SLC-VS963 should be between 1.3 and 2.0 wt %.

Temperature profile setting of the extruder:

- Barrel 150/150/150/190/200/200/210℃
- Head and die 210℃
- Screw 80-100℃

Crosslinking: Rate of cure is dependent upon time, temperature and thickness of the layer and available moisture. Sufficient crosslinking can be achieved by any of the following methods:

- Immersion in water at 80-90℃ ,or
- Exposure to low pressure steam at 105℃,or
- Exposure to steam at atmospheric pressure

Application

Low- and medium-voltage power cables produced by the equipment designed for Monosil technology.

Packing

The regular packing of this product is 25kg plastic pail, 200L steel drums and 1000L immediate bulk container.

Storage and Shelf Life

Should be stored in dry, cool, ventilated room; keep away from water, moisture, high temperature and fire. This product has a shelf life of at least 9 months if stored in tightly closed original container at room temperature.

CAUTION: NEVER STORE THIS PRODUCT ABOVE 55℃(131℉)!

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If this product is kept beyond the shelf life recommend on the product label, it is not necessarily unusable, but a quality control should be performed on the properties relevant to the application.

Product Safety and Handling

When considering the use of any Capatue products in a particular application, you should read our latest Material Safety Data Sheets (MSDS) thoroughly for handling instructions, personal protective equipment if necessary, other safety issue and toxicological data as well as for information on proper transportation, storage and use to ensure that the use you intend can be accomplished safely. Our latest Material Safety Data Sheets (MSDS) and other product safety information are available at www.capatue.com or upon request, from our customer service department.

Use of other material in conjunction with Capatue products may require addition precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

This product is for industry use only; it is neither tested nor represented as suitable for food, medical or pharmaceutical uses.

Limited Warranty Information

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Capatue's products are safe, effective, and fully satisfactory for the intended end use.

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