



**Polyethylene**  
**Visico™ LE4423/LE4432**  
Silane Crosslinkable Insulation Compound

### Description

**Visico LE4423/LE4432** is a scorch retardant, moisture-crosslinking polyethylene compound for low voltage insulation

The combination of a VISICO base material, **LE4423**, and a tin catalyst masterbatch, **LE4432**, provides a highly scorch retardant compound with excellent thermal stability. **LE4423/LE4432** contains a patented scorch retardant additive (SRA) that increases the processing window for a moisture crosslinking compound and minimizes the tendency for premature crosslinking in the extruder, head or die.

**LE4432** should be added to **LE4423** directly in the extruder hopper by dry blending a ratio of 10 parts **LE4432** to 90 parts **LE4423**. **LE4432** also provides, in addition to catalyst, a stabilizer package containing suitable antioxidants, a metal passivator and a metal deactivator and a 25% loading of fine particle size carbon black for UV weather resistance. Properly mixed, during the extrusion process, **LE4423/LE4432** exhibits excellent thermal stability to oxidation. The final insulation or jacketing will also contain 2.5% of a suitable carbon black to ensure satisfactory UV weathering stability.

**APPLICATION:** **LE4423/LE4432** is recommended for use as insulation for low voltage control cables and power cables up to 6 kV in rating.

### Specifications

**Visico LE4423/LE4432** in combination meets the applicable requirements as below when processed using extrusion practice and testing procedure:

Underwriters Laboratories Standards 854 for types USE and USE-2	EC 502
Canadian Standards Association C22.2 No. 1790-00-Airport Series Lighting Cables and C22.2 No. 38 Cable Type RW-90 Outdoor	NBN C 33-321
ASTM D 2655	NF C33-210
	HD 603 S1
	NF C32-090

### Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density (Base Resin)	923 kg/m <sup>3</sup>	ASTM D 792
Density (Masterbatch)	1050 kg/m <sup>3</sup>	ASTM D 792
Melt Flow Rate (190 °C/16 kg) <sup>1</sup>	0,9 g/10min	ASTM D 1238
Tensile Strain at Break	300 %	ASTM D 412
Tensile Strength	15 MPa	ASTM D 412
Tensile Strength	2.140 psi	
Retention of Tensile Properties After Ageing (7 d, 121 °C)	>= 90 %	
Hot Creep Test (150 °C, 0,20 MPa)	Elongation under load <= 50 % Permanent deformation <= 5 %	ICEA T-28-562

<sup>1</sup> Base Resin



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### Electrical Properties

Property	Typical Value	Test Method
	Data should not be used for specification work	
Dielectric constant (60 Hz)	2,3	ASTM D 150
Volume Resistivity	10 POhm.cm	ASTM D 257
Dielectric Strength	> 550 V/mil	ASTM D 149
Dielectric Strength	> 22 kV/mm	
Dissipation Factor (60 Hz)	0,0005	ASTM D 150

### Processing Techniques

Following parameters should be used as guidelines:

Most equipment designed for PVC or PE extrusion is equally suitable for LE4423/LE4432. Typically the following process conditions should be used as a starting point to achieve a stable extrusion process. On-size pressure or low draw down tube-on tooling is recommended for a cable having a smooth glossy appearance. Whichever type of tooling is used, however, the die should hve parallel lands of a length approximately twice that of the final cable diameter.

Typically the following process conditions are used:

Barrel 1	295 °F
	146 °C
Barrel 2	310 °F
	155 °C
Barrel 3	325 °F
	163 °C
	171 °C
Barrel 4	340 °F
Die head	350 °F
	177 °C

### Packaging

- Base material
- Package: Octabins
- Catalyst master batch
- Package: Smallbins



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## Storage

**Visico LE4423/LE4432** has a shelf life of 12 months from delivery date if stored in unopened original packages, under dry and clean conditions at temperatures between 10 - 30 °C (50 - 85 °F).

More information on storage is found in our "Safety data sheet" / "Product safety information sheet".

## Disclaimer

**The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.**

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