

Visico™ LE4421/LE4437

Crosslinked Polyethylene

Borealis AG

Message:

Visico LE4421/LE4437 is a scorch retardant, moisture-crosslinking polyethylene compound for low voltage insulation. The combination of a VISICO base material, LE4421, and a tin catalyst masterbatch, LE4437, provides a highly scorch retardant compound with excellent thermal stability. LE4421/LE4437 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. LE4437 should be added to LE4421 directly in the extruder hopper by dry blending a ratio of 5 parts LE4437 to 95 parts LE4421. LE4437 also provides, in addition to catalyst, a stabilizaton package containing suitable antioxidants, a metal passivator and a metal deactivator. Properly mixed, during the extrusion process, LE4421/LE4437 exhibits excellent thermal stability to oxidation. LE4421/LE4437 is readily pigmented to a variety of colors using standard wire & cable concentrates designed for thermoplastic or crosslinked polyethylene. UV weather resistance is obtained by the addition of a suitable carbon black or UV additive. Using VISICO LE4432 in place of LE4437 combines a tin catalyst along with the proper carbon black to provide a black, UV resistant, moisture crosslinking cable insulation. APPLICATION: LE4421/LE4437 is recommended for use as insulation for low voltage conrol cables and power cables up to 6kv in rating.

General Information	
Additive	Antioxidant
	Carbon Black
	Metal Deactivator
	Scorch Resistant
	UV Stabilizer
Features	Antioxidant
	Crosslinkable
	Good Thermal Stability
	Good UV Resistance
	Good Weather Resistance
	Oxidation Resistant
Uses	Cable Jacketing
	Low Voltage Insulation
	Power Cable Jacketing
Wire Types	RW-90
	USE
	USE-2
Agency Ratings	ASTM D 2655
	CSA C-22.2 No. 1790-00
	CSA C-22.2 No. 38
	DIN VDE 0207, 2X11
	EC 1907/2006 (REACH)

EC 502
 HD 603 S1
 NFC 32-090
 NFC 33-210
 UL 854

Appearance	Black		
	Colors Available		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
-- ¹	0.923	g/cm ³	
-- ²	0.941	g/cm ³	
Melt Mass-Flow Rate (MFR) ³ (190°C/2.16 kg)	0.90	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	15.0	MPa	ASTM D412
Tensile Elongation (Break)	300	%	ASTM D412
Aging	Nominal Value	Unit	Test Method
Retention of Tensile Properties - After Ageing 168 h (121°C)	> 90	%	ASTM D638
Hot Creep			ICEA T-28-562
Elongation under load : 150°C	< 50	%	
Permanent deformation : 150°C	< 5.0	%	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	> 22	kV/mm	ASTM D149
Dielectric Constant (23°C, 60 Hz)	2.30		ASTM D150
Dissipation Factor (23°C, 60 Hz)	5.0E-4		ASTM D150
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	146	°C	
Cylinder Zone 2 Temp.	155	°C	
Cylinder Zone 3 Temp.	163	°C	
Cylinder Zone 4 Temp.	171	°C	
Die Temperature	177	°C	
NOTE			
1.	LE4421 Base Resin		
2.	LE4437 Masterbatch		
3.	LE4421 Base Resin		

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