



Petrothene®

XL07425

Copolymer Compound

Wire and Cable Grade

Density 1.40

Applications

PETROTHENE XL07425 is especially formulated for use in flame retardant primary insulation for low voltage automotive wire and cable applications (SAE J1128) and for UL applications including 125° appliance wire and SIS. Non-discoloring antioxidant and special active peroxide have been added to ensure thermal stability during processing and optimum curing results.

Processing Techniques

XL07425, like other crosslinkable polyolefin compounds, can be extruded as wire and cable insulation by means of a conventional extruder with a continuous vulcanization tube. Below are suggested extrusion and curing conditions for XL07425. These conditions are intended as general guidelines only, and not optimum values, since manufacturing variables such as extruder type and size, continuous vulcanization tube design and cable construction all have an effect on processing crosslinkable compounds. Contact your Equistar sales or technical service representative for more information.

Suggested General Extrusion Conditions

Extruder Zone

Feed

Zone 2

Zone 3-X

Adapter

Head

Melt Temperature

Screw Cooling

Die Cooling

Temperature Range

225° - 235°F (107°-113°C)

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235° - 245°F / 113° - 118°C

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240° - 260°F (116°-127°C)

180°F (82°C), if needed to control melt temperature

90° - 120°F (32° - 49°C) to control die drool

Additional Suggestions

- Maximum screen pack of 40 mesh.
- Little or no die land.
- No predrying normally required.
- Compression ratio of 2:1 or 3:1.
- "Mixing" screws can be used if properly designed to prevent excessive heat build-up. Mixing screws are more useful on short (15/1) extruders .
- Dies should be cleaned frequently to reduce compound build-up.
- On-size dies are recommended.
- Curing line steam temperature should be at least 400°F (204°C).

See Page 2 for Physical and Electrical Properties



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**Physical
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Typical properties for XL07425 appear in the table below. XL07425 is supplied as a natural compound. For information on other resins and compounds for Wire and Cable contact your Equistar sales or technical service representative.

Property*	Nominal Value	Units	Test Method
Density	1.40	g/cc	D 1505
Oxygen Index	25		D 2863
Hardness, Shore D	56		D 2240
Tensile Strength, Original	2,810 (19.4)	psi (MPa)	D 412
Aged 7 days @ 165°C	106	% retention	
Elongation, Original	220	%	D 412
Aged 7 days @ 165°C	98	% retention	

* All properties determined from compression-molded, press-cured plaques.

The values listed for physical and electrical properties are nominal values only and are subject to normal variations consistent with the test methods and/or variations found acceptable to the industry.

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