



Petrothene®

XL07407

Copolymer Compound

Wire and Cable Grade

Density 1.40

Applications

PETROTHENE XL07407 is especially formulated for use in flame retardant primary insulation for low voltage automotive wire and cable (SAE J1128) applications and for UL applications including 125° appliance wire and SIS. XL07407 is a non-tarnishing, non-halogenated, flame retardant, chemically crosslinkable compound. Non-discoloring antioxidant and special active peroxide have been added to ensure thermal stability during processing and optimum curing results.

Processing Techniques

XL07407, 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 XL07407. These conditions are intended as general guidelines only and are 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 of crosslinkable compounds. Contact your Equistar sales or technical service representative for more information.

Suggested General Extrusion Conditions

Extruder Zone	Temperature Range
Feed	225° - 235°F (107°-113°C)
Zone 2	225° - 235°F (107°-113°C)
Zone 3-X	240° - 260°F (116°-127°C)
Adapter	240° - 260°F (116°-127°C)
Die	240° - 260°F (116°-127°C)
Melt Temperature	240° - 260°F (116°-127°C)
Barrel Cooling	On, if temperature overrides.

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" screw can be used if property designed to prevent excessive heat buildup.
- Dies should be cleaned frequently to reduce compound build-up.
- On-size dies are recommended.
- The die area should be cooled up to 20°F by hot water or oil to reduce die build-up.
- Conductors should be cleaned or flame treated to remove any trace drawing oils prior to extrusion.
- Chemical or taped separators may be necessary to provide peelable adhesion over certain conductor types.
- Curing line steam temperature should be at least 400°F (204°C).
- Residence time in the steam varies with steam pressure and construction. A dwell time of 15-20 seconds is typical at 250 psi for a #18-20 AWG/TXL construction.

See Page 2 for Physical and Electrical Properties



Petrothene®

XL07407

Copolymer Compound

Wire and Cable Grade

Density 1.40

**Physical
and
Electrical
Properties**

Typical properties for XL07407 appear in the table below. XL07407 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 792
Oxygen Index	26.0		D 2863
Tensile Strength, Original	3,000	psi	D 412
Aged 7 days @ 165 °C	101	% ret	D 412
Elongation, Original	220	psi	D 412
Aged 7 days @ 165°C	98	% ret	D 412

* 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.

The information on this document is, to our knowledge, true and accurate. However, since the particular uses and the actual conditions of use of our products are beyond our control, establishing satisfactory performance of our products for the intended application is the customer's sole responsibility. All uses of Equistar products and any written or oral information, suggestions or technical advice from Equistar are without warranty, express or implied, and are not an inducement to use any process or product in conflict with any patent.

Equistar materials are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. Equistar makes no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues or fluids.

More detailed safety and disposal information on our products is contained in the Material Safety Data Sheet (MSDS). All users of our products are urged to retain and use the MSDS. A MSDS is automatically distributed upon purchase/order execution. You may request an advance or replacement copy by calling our MSDS Hotline at 800.700.0946.

® Petrothene is a registered trademark of Equistar Chemicals, LP.



Lyondell Chemical Company
1221 McKinney, Suite 700
P.O. Box 2583
Houston, Texas 77252-2583
800.615.8999
<http://www.lyondell.com>