*Petrothene*

# YR19548

Non-Halogenated Flame Retardant Polyolefin Compound
Wire and Cable Grade
Density **1.40**

## Description

*Petrothene* YR19548 is a colorable, non-halogenated, flame retardant compound crosslinkable via electron beam radiation.

## Applications

*Petrothene* YR19548 is used in 125°C automotive primary insulation (SAE J1128) constructions.

## Typical Properties

| Property* | Nominal Value | Units | ASTM Method |
|---|---|---|---|
| Density | 1.40 | g/cc | D 1505 |
| Tensile Strength, Original | 2,400 (16.6) | psi (MPa) | D 412 |
| Aged 7 days @ 150°C | 100 | % retention | |
| Elongation, Original | 220 | % | D 412 |
| Aged 7 days @ 150°C | 90 | % retention | |

* All properties determined from #20 AWG/TXL wire irradiated at 7.5 Mrads.
The data obtained for physical properties are nominal values only and subject to normal variations consistent with the test methods and/or variations found acceptable to the industry.

## Material Handling

Pre-drying is typically not required. For additional handling information see the material MSDS.

## Processing Techniques

*Petrothene* YR19548, like other thermoplastic polyolefin compounds, can be extruded as wire and cable insulation by a conventional extruder. Below are suggested extrusion and curing conditions for YR19548. These conditions are intended as general guidelines only and are not optimum values, since manufacturing variables such as extruder type and size, radiation unit design and cable construction all have an effect on the processing of cross-linkable compounds. Users should determine the conditions necessary to obtain optimum product properties and suitability of the product for the intended application.

## Suggested General Extrusion Conditions

| Extruder Zone | Temperature Range | Extruder Zone | Temperature Range |
|---|---|---|---|
| Feed | 265° - 275°F (129° - 135°C) | Adapter | 295° - 305°F (146° - 152°C) |
| Zone 2 | 265° - 275°F (129° - 135°C) | Die | 295° - 305°F (146° - 152°C) |
| Zone 3 | 265° - 275°F (129° - 135°C) | Head | 305° - 315°F (152° - 157°C) |
| Zone 4-X | 275° - 285°F (135° - 141°C) | Melt | 340° - 360°F (171° - 182°C) |

### Additional Suggestions

- Single angle nominal or slightly undersize die with little or no land.
- Die block cooling
- Suggested e-beam dosage is 7.5 Mrads.