Petrothene® KR92828

High Density (HMW) Polyethylene LyondellBasell Industries

Message:

PETROTHENE KR 92828 is a high molecular weight, high density polyethylene-based compound designed for use in jacketing, conduit or wire insulation. KR 92828 contains a carbon black content of 2.5%. Antioxidant has been added to ensure thermal stability during processing.

| General Information | | | | |
|-------------------------------------------------------|-----------------------------------------------------|----------|-------------|--|
| Additive | Carbon black (3%) | | | |
| Features | Rigid, good | | | |
| | High molecular weight | | | |
| | Copolymer | | | |
| | Compliance of Food Exposure | | | |
| | Medium wide molecular weight distribution | | | |
| Uses | Cable sheath | | | |
| | Wire and cable applications | | | |
| | vine and cable applications | | | |
| Agency Ratings | ASTM D 1248, III, Class A, Cat. 5, Grade E10 | | | |
| | FDA 21 CFR 177.1520 | | | |
| | FED L-P-390C, Type II, Class H, Category 5, Grade 5 | | | |
| | | | | |
| Forms | Particle | | | |
| Processing Method | Extrusion | | | |
| Physical | Nominal Value | Unit | Test Method | |
| Density | 0.955 | g/cm³ | ASTM D1505 | |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 | | | | |
| kg) | 0.17 | g/10 min | ASTM D1238 | |
| Environmental Stress-Cracking Resistance (10% Igepal) | 1000 | hr | ASTM D1693 | |
| Hardness | Nominal Value | Unit | Test Method | |
| | | Offit | ASTM D2240 | |
| Durometer Hardness (Shore D) | Naminal Walva | 11-2 | | |
| Mechanical To the Mark Land 1975 | Nominal Value | Unit | Test Method | |
| Tensile Modulus - 1% Secant | 531 | MPa | ASTM D638 | |
| Tensile Strength | | | ASTM D638 | |
| Yield | 19.3 | MPa | ASTM D638 | |
| Fracture | 31.7 | MPa | ASTM D638 | |
| Tensile Elongation (Break) | 800 | % | ASTM D638 | |
| Flexural Modulus - 1% Secant | 758 | MPa | ASTM D790 | |
| Thermal | Nominal Value | Unit | Test Method | |
| Brittleness Temperature | -76.0 | °C | ASTM D746 | |

| CLTE - Flow | 1.5E-4 | cm/cm/°C | ASTM D696 |
|-----------------------------|---------------|----------|-------------|
| Electrical | Nominal Value | Unit | Test Method |
| Volume Resistivity | 2.0E+17 | ohms·cm | ASTM D257 |
| Dielectric Strength | 22 | kV/mm | ASTM D149 |
| Dielectric Constant (1 MHz) | 2.50 | | ASTM D150 |
| Dissipation Factor (1 MHz) | 2.0E-4 | | ASTM D150 |

Additional Information

The value listed as Dielectric Constant, ASTM D150, was tested in accordance with ASTM D1531. The value listed as Dissipation Factor, ASTM D150, was tested in accordance with ASTM D1531. Absorption Coefficient, ASTM D3349: 440

| Extrusion | Nominal Value | Unit | |
|-----------------------|---------------|------|--|
| Cylinder Zone 1 Temp. | 149 - 163 | °C | |
| Cylinder Zone 2 Temp. | 177 - 204 | °C | |
| Cylinder Zone 3 Temp. | 191 - 204 | °C | |
| Cylinder Zone 4 Temp. | 238 - 260 | °C | |
| Adapter Temperature | 246 - 260 | °C | |
| Melt Temperature | 246 - 260 | °C | |
| Die Temperature | 246 - 260 | °C | |

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