

Technical Data Sheet

Petrothene PR92735



W&C Polyolefin Compound

Product Description

Petrothene PR92735 is a high molecular weight, linear low density polyethylene-based compound selected by customers for cable jacketing or wire insulation. PR92735 contains a nominal carbon black content of 2.6%. Antioxidant, to ensure thermal stability, and a processing aid have been added.

Petrothene PR92735 meets the requirements of the following: ASTM D 1248, Type I, Class C, Category 4, Grades E5, J1 and J3; Federal LP390C, Type III, Class L, Category 4, Grades 2, 3 and 4; REA PE-200, Appendix E.

Regulatory Status

For regulatory compliance information, see *Petrothene* PR92735 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Application	Wire & Cable
Market	Wire & Cable
Processing Method	Wire & Cable

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.72	g/10 min	0.72	g/10 min	ASTM D1238
Density, (23 °C)	0.930	g/cm ³	0.930	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	53000	psi	366	MPa	ASTM D790
Tensile Modulus, (1% Secant)	36000	psi	248	MPa	ASTM D638
Tensile Stress at Break	2400	psi	16.6	MPa	ASTM D638
Tensile Stress at Yield	1600	psi	11.0	MPa	ASTM D638
Tensile Elongation at Break	650	%	650	%	ASTM D638
Environmental Stress Crack Resistance, F ₂₀ (10% Igepal®, Cond A)	>1000	hr	>1000	hr	ASTM D1693
Hardness					
Shore Hardness, (Shore D)	57		57		ASTM D2240
Thermal					
Low Temperature Brittleness, F ₅₀	<-105	°F	<-76	°C	ASTM D746
Coefficient of Linear Thermal Expansion (CLTE), (23 °C)	2.0 x 10 ⁻⁴	in/in/°C			ASTM D696
Electrical					
Dielectric Constant, 1 MHz	2.50		2.50		ASTM D150
Dissipation Factor, 1 MHz	0.0004		0.0004		ASTM D150
Dielectric Strength	500	V/mil			ASTM D149
Additive					
Carbon Black Content	2.60	%	2.60	%	ASTM D1603
Additional Information					

Absorption Coefficient	440	440	ASTM D3349
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Notes

Igepal® is a registered trademark of Rhodia.

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

General Extrusion Conditions

Petrothene PR92735, like other thermoplastic polyolefin compounds, can be extruded using a conventional extruder. Below are suggested extrusion conditions for *Petrothene* PR92735. These conditions are intended as general guidelines only, and are not optimum values, since manufacturing variables such as extruder type and size have an effect on processing of thermoplastic compounds.

<u>Extruder Zone</u>	<u>Temperature Range</u>	<u>Extruder Zone</u>	<u>Temperature Range</u>
Feed	310 - 325 °F (154 - 163 °C)	Zone 4-X	400 - 425 °F (204 - 218 °C)
Zone 2	350 - 380 °F (177 - 193 °C)	Adapter	400 - 425 °F (204 - 218 °C)
Zone 3	380 - 410 °F (193 - 210 °C)	Die	400 - 425 °F (204 - 218 °C)

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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