Technical Data Sheet

Petrothene KR92828

W&C Polyolefin Compound

Product Description

Petrothene KR92828 is a high molecular weight, high density polyethylene-based compound selected by customers for use in cable jacketing, conduit or wire insulation. KR92828 contains a nominal carbon black content of 2.5%. Antioxidant has been added to ensure thermal stability during processing.

Petrothene KR92828 meets the requirements of the following: ASTM D 1248, Type III, Class C, Category 5, Grades J4 and E10; Federal LP390C, Type III, Class H, Category 5, Grades 1 and 2.

Regulatory Status

For regulatory compliance information, see *Petrothene* KR92828 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)	0.17	g/10 min	0.17	g/10 min	ASTM D1238
Density, (23 °C)	0.955	g/cm³	0.955	g/cm³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	110000	psi	760	MPa	ASTM D790
Tensile Modulus, (1% Secant)	77000	psi	531	MPa	ASTM D638
Tensile Stress at Break	4600	psi	31.6	MPa	ASTM D638
Tensile Stress at Yield	2800	psi	19.2	MPa	ASTM D638
Tensile Elongation at Break	800	%	800	%	ASTM D638
Environmental Stress Crack Resistance, F_{20} (10% Igepal®, Cond B)	>1000	hr	>1000	hr	ASTM D1693
Hardness					
Shore Hardness, (Shore D)	65		65		ASTM D2240
Thermal					
Low Temperature Brittleness, F_{50}	<-105	°F	<-76	°C	ASTM D746
Coefficent of Linear Thermal Expansion (CLTE), (23 °C)	1.5 x 10^{-4}	in/in/°C			ASTM D696
Electrical					
Volume Resistivity	2 x 10^{17}	ohm*cm	2 x 10^{17}	ohm*cm	ASTM D257
Dielectric Constant, 1 MHz	2.50		2.50		ASTM D150
Dissipation Factor, 1 MHz	0.0002		0.0002		ASTM D150
Dielectric Strength	550	V/mil			ASTM D149
Additive					
Carbon Black Content	2.60	%	2.60	%	ASTM D1603

Manufacturer website: https://www.lyondellbasell.com/en/

Additional Information			
Absorption Coefficient	440	440	ASTM D3349

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 KR92828, like other thermoplastic polyolefin compounds, can be extruded using a conventional extruder. Below are suggested extrusion conditions for *Petrothene* KR92828. 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.

Extruder Zone	Temperature Range	Extruder Zone	Temperature Range
Feed	300 - 325 °F (149 - 163°C)	Adapter	475 - 500 °F (246 - 260 °C)
Zone 2	350 - 400 °F (177 - 204 °C)	Die	475 - 500 °F (246 - 260 °C)
Zone 3	375 - 400 °F (191 - 204°C)	Melt Temperature	475 - 500 °F (246 - 260 °C)
Zone 4-X	460 - 500 °F (238 - 260 °C)		

Company Information

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

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