

Petrothene HR92953

W&C Polyolefin Compound

Product Description

Petrothene HR92953 is a medium density polyethylene-based resin selected by customers for use as jacketing for communications cable, including CATV and FOC. HR92953 has a nominal carbon black content of 2.6% and antioxidant has been added to ensure thermal stability during processing.

Petrothene HR92953 meets the requirements of the following: ASTM D 1248, Type II, Class C, Category 4, Grades E10 and J5; Federal LP390C, Type III, Class M, Category 4, Grade 3.

Regulatory Status

For regulatory compliance information, see *Petrothene* HR92953 [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)	0.65	g/10 min	0.65	g/10 min	ASTM D1238
Density, (23 °C)	0.945	g/cm ³	0.945	g/cm ³	ASTM D1505
Mechanical					
Tensile Stress at Break	4000	psi	27.6	MPa	ASTM D638
Tensile Stress at Yield	2400	psi	16.6	MPa	ASTM D638
Tensile Elongation at Break	880	%	880	%	ASTM D638
Environmental Stress Crack Resistance, F ₂₀ (10% Igepal®, Cond B)	>1000	hr	>1000	hr	ASTM D1693
Hardness					
Shore Hardness, (Shore D)	60		60		ASTM D2240
Thermal					
Low Temperature Brittleness, F ₅₀	<-105	°F	<-76	°C	ASTM D746
Electrical					
Dielectric Constant, 1 MHz	2.55		2.55		ASTM D150
Dissipation Factor, 1 MHz	0.0005		0.0005		ASTM D150
Dielectric Strength	550	V/mil			ASTM D149
Additive					
Carbon Black Content	2.60	%	2.60	%	ASTM D1603
Additional Information					
Absorption Coefficient	450		450		ASTM D3349

Notes

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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.

Petrothene HR92953, like other thermoplastic polyolefin resins, can be extruded using a conventional extruder. Below are suggested extrusion conditions for *Petrothene* HR92953. 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 resins.

<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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