Technical Data Sheet

Petrothene GA808093

W&C Polyolefin Compound

Product Description

Petrothene GA808093 is a broad molecular weight, linear low density polyethylene resin selected by customers for use as wire and cable insulation. An antioxidant package has been added to ensure thermal stability during processing. The resin also contains a metal deactivator to prevent degradation from copper while the cable is in service.

Petrothene GA808093 meets the requirements of the following: ASTM D 1248, Type I, Class A, Category 4, Grade E5; Federal LP390C, Type II, Class L, Category 4, Grade 4.

Regulatory Status

For regulatory compliance information, see *Petrothene* GA808093 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)	0.70	g/10 min	0.70	g/10 min	ASTM D1238
Density, (23 °C)	0.920	g/cm³	0.920	g/cm³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	50000	psi	345	MPa	ASTM D790
Tensile Stress at Break	2200	psi	15.2	MPa	ASTM D638
Tensile Stress at Yield	1700	psi	12.0	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
Electrical					
Dielectric Constant, 1 MHz	2.29		2.29		ASTM D150
Dissipation Factor, 1 MHz	0.00010		0.00010		ASTM D150

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

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 GA808093, like other thermoplastic polyolefin resins, can be extruded using a conventional extruder. Below are suggested extrusion conditions for *Petrothene* GA808093. 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.

Extruder Zone	Temperature Range	Extruder Zone	Temperature Range
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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