Technical Data Sheet

Petrothene PP1510PC

W&C Polyolefin Compound

Product Description

Petrothene PP1510PC is selected by customers for use as primary insulation or a jacketing base resin for wire and cable applications. PP1510PC contains antioxidants to help ensure thermal stability during processing and to provide excellent long-term aging properties. It also contains a metal deactivator to prevent degradation while the cable is in service.

Petrothene PP1510PC meets the requirements of the following: ASTM D 4101, Group 03, Class 4, Grade 8; PP0348B44803EO; Federal LP394C, Type IV, Grade B.

Regulatory Status

For regulatory compliance information, see *Petrothene* PP1510PC 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, (230 °C/2.16 kg)	1.3	g/10 min	1.3	g/10 min	ASTM D1238
Density, (23 °C)	0.902	g/cm³	0.902	g/cm³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	155000	psi	1070	MPa	ASTM D790
Tensile Stress at Break	4150	psi	28.6	MPa	ASTM D638
Tensile Stress at Yield	3200	psi	22.1	MPa	ASTM D638
Tensile Elongation at Break	600	%	600	%	ASTM D638
Environmental Stress Crack Resistance, F_{20} (100% Igepal®, Cond A)	0 Failures at 7 days		0 Failures at 7 days		ASTM D1693
Thermal					
Low Temperature Brittleness, F_{50}	<-13	°F	<-25	°C	ASTM D746
Electrical					
Volume Resistivity	2 x 10^{17}	ohm*cm	2 x 10^{17}	ohm*cm	ASTM D257
Dielectric Constant, 1 MHz	2.27		2.27		ASTM D150
Dissipation Factor, 1 MHz	0.0004		0.0004		ASTM D150

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 PP1510PC, like other thermoplastic polyolefin resins, can be extruded using a conventional extruder. Below are suggested extrusion conditions for *Petrothene* PP1510PC. 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	435 - 465 °F (224 - 241 °C)	Zone 4-X	365 - 385 °F (185 - 196 °C)
Zone 2	430 - 460 °F (221 - 238 °C)	Adapter	400 - 425 °F (204 - 218 °C)
Zone 3	390 - 410 °F (200 - 210 °C)	Die	420 - 460 °F (216 - 238 °C)

Company Information

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