

Petrothene

PP1510PC

Polypropylene Impact Copolymer
Wire and Cable Grade

Melt Flow Rate 1.3 Density 0.902



Applications

Petrothene PP1510PC is designed 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.

Processing Techniques

PP1510PC, like other thermoplastic polyolefin resins, can be extruded as wire and cable insulation using a conventional extruder. Below are suggested extrusion conditions for PP1510PC. These conditions are intended as general guidelines only and are not optimum values, since manufacturing conditions such as extruder type and size have an effect on the processing of thermoplastic resins. For exact recommendations, contact your Equistar sales or technical service representative.

Suggested General Extrusion Conditions

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° - 239°C)	Adapter	400° - 425°F (204° - 218°C)
Zone 3	390° - 410°F (200° - 210°C)	Die	420° - 460°F (216° - 238°C)

Industry Specifications

PP1510PC meets the requirements of the following: ASTM D 4101, Group 03, Class 4, Grade 8, PP0348B44803EO, Federal LP 394C, Type IV, Grade B.

Typical Properties

Property	Nominal Value	Units	ASTM Test Method
Melt Flow Rate	1.3	g/10 min.	D 1238
Density	0.902	g/cc	D 1505
Tensile Strength @ Break	4,150 (28.6)	psi (MPa)	D 638
Tensile Strength @ Yield	3,200 (22.1)	psi (MPa)	D 638
Elongation at Break	600	%	D 638
Flexural Modulus, 1% Secant	155,000 (1069)	psi (Mpa)	D 790
Low Temperature Brittleness, F ₅₀	<-25	°C	D 746
ESCR, 100% Igepal®	0 Failures @ 7 days		D 1693
Dielectric Constant @ 1 MHz	2.27		D 1531
Dissipation Factor @ 1 MHz	0.0004		D 1531
Volume Resistivity	2 x 10 ¹⁷	ohm-cm	D 257

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