Technical Data Sheet

Petrothene NA217080

W&C Polyolefin Compound

Product Description

Petrothene NA217080 is a natural low density polyethylene resin selected by customers for use as primary insulation for coaxial cable applications. NA217080 has also been used as a base resin for compounding materials including gas-injected or chemically expanded insulation.

Petrothene NA217080 meets the requirements of the following: ASTM D 1248, Type I, Class A, Category 3, Grade E3; Federal LP390C, Type II, Class L, Category 3, Grade 1.

Regulatory Status

For regulatory compliance information, see *Petrothene* NA217080 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)	5.6	g/10 min	5.6	g/10 min	ASTM D1238
Density, (23 °C)	0.923	g/cm³	0.923	g/cm³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	40000	psi	282	MPa	ASTM D790
Tensile Stress at Break	1800	psi	12.7	MPa	ASTM D638
Tensile Stress at Yield	1500	psi	10.4	MPa	ASTM D638
Tensile Elongation at Break	550	%	550	%	ASTM D638
Hardness					
Shore Hardness, (Shore D)	53		53		ASTM D2240
Thermal					
Low Temperature Brittleness, F_{50}	<-105	°F	<-76	°C	ASTM D746
Electrical					
Dielectric Constant, 1 MHz	2.28		2.28		ASTM D150
Dissipation Factor					
1 MHz	0.00004		0.00004		ASTM D150
2 GHz	0.00004		0.00004		LYB Method

Notes

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 NA217080, like other thermoplastic polyolefin resins, can be extruded using a conventional extruder. Below are suggested extrusion conditions for *Petrothene* NA217080. 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	280 - 300 °F (138 - 149 °C)	Adapter	400 - 425 °F (204 - 218 °C)
Zone 2	300 - 325 °F (149 - 163 °C)	Die	400 - 425 °F (204 - 218 °C)
Zone 3	375 - 400 °F (190 - 204 °C)	Melt Temperature	400 - 425 °F (204 - 218 °C)
Zone 4-X	400 - 425 °F (204 - 218 °C)		

Company Information

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