

## LyondellBasell Petrothene® NA217080 Low Density Polyethylene

Category: Polymer, Thermoplastic, Polyethylene (PE), LDPE, Low Density Polyethylene (LDPE), Extrusion Grade

## **Material Notes:**

ApplicationsPETROTHENE NA 217-080 is a natural low density polyethylene resin formulated for use as primary insulation for coaxial and control cable applications. NA 217-080 has also been designed for use as a base resin for compounding material including gas-injected or chemically expanded insulation. Processing TechniquesNA 217-080, like other thermoplastic polyolefin resins, can be extruded as wire and cable insulation by means a conventional extruder. Below are suggested extrusion conditions for NA 217-080. 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 further information on resins and compounds for wire and cable, contact the Equistar sales representative. This product is from the former Equistar product line.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_LyondellBasell-Petrothene-NA217080-Low-Density-Polyethylene.php

Physical Properties	Metric	English	Comments
Density	0.923 g/cc	0.0333 lb/in³	ASTM D1505
Melt Flow	5.6 g/10 min	5.6 g/10 min	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	53	53	ASTM D2240
Tensile Strength at Break	12.4 MPa	1800 psi	ASTM D638
Tensile Strength, Yield	10.3 MPa	1500 psi	ASTM D638
Elongation at Break	550 %	550 %	ASTM D638
Flexural Modulus	0.276 GPa	40.0 ksi	1% Secant; ASTM D790

Thermal Properties	Metric	English	Comments
Brittleness Temperature	<= -76.0 °C	<= -105 °F	F <sub>50</sub> ; ASTM D746

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.28	2.28	ASTM D1531
Dielectric Constant	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dissipation Factor	0.000040	0.000040	ASTM D1531
Dissipation Factor	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	ASTIM D1931
	0.000040	0.000040	
	@Frequency 2.00e+9	@Frequency 2.00e+9	ASTM D1531



Electrical Properties	Hz Metric	Hz English	Comments
Processing Properties	Metric	English	Comments
Feed Temperature	138 - 149 °C	280 - 300 °F	
Zone 2	149 - 163 °C	300 - 325 °F	
Zone 3	191 - 204 °C	375 - 400 °F	
Zone 4-x	204 - 218 °C	400 - 425 °F	
Adapter Temperature	204 - 218 °C	400 - 425 °F	
Die Temperature	204 - 218 °C	400 - 425 °F	
Melt Temperature	204 - 218 °C	400 - 425 °F	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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