EQUISTAR
A Lyondell Company

Petrothene®

GA808091

Linear Low Density Polyethylene
Wire and Cable Grade
Melt Index 0.75 Density 0.920

Applications

PETROTHENE GA808091 is a broad molecular weight, linear low density polyethylene resin designed for use as a base resin in wire and cable jacketing. An antioxidant package is added to ensure thermal stability during processing.

Processing Techniques

GA808091, like other thermoplastic polyolefin resins, can be extruded as wire and cable insulation using a conventional extruder. Below are suggested extrusion conditions for GA808091. 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.

Suggested General Extrusion Conditions

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)

Industry Specifications

GA808091 meets the requirements of the following: ASTM D 1248, Type I, Category 4, Class A, Grade E5. Federal LP390C, Type II, Class L, Category 4, Grade 4.

Typical Properties

Property	Nominal Value	Units	ASTM Test Method
Melt Index	0.75	g/10 min.	D 1238
Density	0.920	g/cc	D 1505
Tensile Strength @ Break	2,200 (15.9)	psi (MPa)	D 638
Tensile Stress @ Yield	1,700 (12.0)	psi (MPa)	D 638
Elongation @ Break	650	%	D 638
Flexural Modulus, 1% Secant	50,000 (345)	psi (MPa)	D 790
Hardness, Shore D	57		D 2240
Dielectric Constant @ 1 MHz	2.29		D 1531
Dissipation Factor @ 1 MHz	0.00006		D 1531
ESCR, 10% Igepal®	>1,000	hours	D 1693
Low Temperature Brittleness, F_{50}	<-76	°C	D 746

For further information on resins and compounds for wire and cable, contact your Equistar Sales or technical service representative

® Igepal is a registered trademark of the Rhône-Poulenc Co., Inc.