

Petrothene

KR52828E

High Density Polyethylene
Wire and Cable Grade

Melt Index 0.3 Density 0.956

Applications

Petrothene KR52828E is a multi-modal, broad molecular weight high density polyethylene-based compound designed for use in jacketing, conduit or wire insulation. KR52828E contains 2.2% carbon black for UV stabilization. KR52828E contains a robust additive package for thermal stabilization.

Processing Techniques

KR52828E, like other thermoplastic polyolefin compounds, can be extruded as wire or cable jacketing using a conventional extruder. Below are suggested extrusion conditions for KR52828E. 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 compounds.

Suggested General Extrusion Conditions

Extruder Zone	Temperature Range	Extruder Zone	Temperature Range
Feed	150°-170°C	Adapter	190°-240°C
Zone 2	160°-185°C	Die	190°-240°C
Zone 3	170°-220°C	Melt Temperature	190°-240°C
Zone 4-X	190°-240°C		

Industry Specifications

KR52828E meets the requirements of the following: ASTM D 1248, Type III, Class C, Category 5, Grade J4.

Typical Properties

Property	Nominal Value	Units	Test Method
Melt Flow Rate	0,3	g/10 min.	ISO 1133
Density	0,956	g/cm ³	ISO 1183
Tensile Stress @ Yield	23	MPa	ISO 527-1, -2
Tensile Elongation @ Break	700	%	ASTM D 638
Tensile Modulus (23°C, v = 1mm/min)	900	MPa	ISO 527-1, -2
Flexural Modulus (1% Secant)	1.200	MPa	ASTM D 780
Hardness, Shore D	60		ISO 868
Low Temperature Brittleness, F ₅₀	<-76	°C	D 746
ESCR, 10% Igepal®	>2.000	hours	IEC 538
Dielectric Strength	20	kV/mm	IEC 60243
Volume Resistivity	1x10 ⁶	Ohm-cm	D 257
Oxidation Induction Time (OIT), 200°C	> 30	minutes	EN 728

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