



Syncure™ S1016A Natural Crosslinked Polyethylene

Key Characteristics

Product Description

Graft Resin component for PolyOne's Syncure™ system, which is a two-step, silane-grafted, moisture-crosslinkable polyethylene system. Graft Resins have approximate shelf life of 6 months from the date of production. Please consult PolyOne for its use past 6 months.

General

Material Status	• Commercial: Active
Regional Availability	• Africa & Middle East • Asia Pacific • Europe • North America
Uses	• Wire & Cable Applications
Forms	• Pellets

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.955 g/cm ³	0.955 g/cm ³	ASTM D1505
Apparent Density ²	0.55 g/cm ³	0.55 g/cm ³	Internal Method
Melt Mass-Flow Rate (MFR) ³ (190°C/2.16 kg)	0.59 g/10 min	0.59 g/10 min	ASTM D1238
Appearance	Pellets/Cubes	Pellets/Cubes	ASTM D2090
Gel Content ⁴	80 %	80 %	ASTM D2765
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength ⁵ (Break)	4500 psi	31.0 MPa	ASTM D638
Tensile Elongation ⁵ (Break)	400 %	400 %	ASTM D638
Flexural Modulus	1400 psi	9.65 MPa	ASTM D790
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deformation ⁶ (268°F (131°C))	2.0 %	2.0 %	UL 1581
Hot Creep Elongation ⁷	30 %	30 %	

Additional Information

Tensile, Elongation, Deformation, Hot Creep, and Gel measured on a 95 phr S1016A / 5 phr S1000B system; and cured by autoclave for 9 hours. Modulus measured on a 95 phr S1016A / 5 phr S1037B system.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	160 °F	71.1 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Rear Temperature	400 to 445 °F	204 to 229 °C
Middle Temperature	410 to 455 °F	210 to 235 °C
Front Temperature	420 to 465 °F	216 to 241 °C
Nozzle Temperature	430 to 475 °F	221 to 246 °C
Mold Temperature	40.0 to 110 °F	4.44 to 43.3 °C

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Notes

¹ Typical values are not to be construed as specifications.

² Geon® 1169

³ Procedure A

⁴ Crosslinked PE, Method B (NonReferee Test)

⁵ Type IV, 20 in/min (510 mm/min)

⁶ 500 g, 1hr

⁷ SYV-40

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