



Syncure™ S1042A 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	0.918 g/cm ³	0.918 g/cm ³	ASTM D1505
Apparent Density ²	1.70 g/cm ³	1.70 g/cm ³	Internal Method
Melt Mass-Flow Rate (MFR) ³ (190°C/2.16 kg)	0.73 g/10 min	0.73 g/10 min	ASTM D1238
Appearance	Pellets/Cubes	Pellets/Cubes	ASTM D2090
Gel Content ⁴	75 %	75 %	ASTM D2765
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength ⁵ (Break)	1900 psi	13.1 MPa	ASTM D638
Tensile Elongation ⁵ (Break)	300 %	300 %	ASTM D638
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Brittleness Temperature	-94.0 °F	-70.0 °C	ASTM D746
Deformation ⁶ (268°F (131°C))	5.0 %	5.0 %	UL 1581

Additional Information

Tensile, Deformation, and Gel measured on a 95 phr S1042A / 5 phr S1000B system; and cured by autoclave for 9 hours.

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

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