



## 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 <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.955 g/cm <sup>3</sup>	0.955 g/cm <sup>3</sup>	ASTM D1505
Apparent (Bulk) Density <sup>2</sup>	0.55 g/cm <sup>3</sup>	0.55 g/cm <sup>3</sup>	Internal Method
Melt Mass-Flow Rate (MFR) <sup>3</sup> (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 <sup>4</sup>	80 %	80 %	ASTM D2765
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>5</sup> (Break)	4500 psi	31.0 MPa	ASTM D638
Tensile Elongation <sup>5</sup> (Break)	400 %	400 %	ASTM D638
Flexural Modulus	140000 psi	965 MPa	ASTM D790
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deformation <sup>6</sup> (268°F (131°C))	2.0 %	2.0 %	UL 1581
Hot Creep Elongation <sup>7</sup>	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 °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 to 110 °F	4 to 43 °C

**Notes**

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Geon® 1169

<sup>3</sup> Procedure A

<sup>4</sup> Crosslinked PE, Method B (NonReferee Test)

<sup>5</sup> Type IV, 20 in/min (510 mm/min)

<sup>6</sup> 500 g, 1hr

<sup>7</sup> SYV-40



*Beyond Polymers.*

*Better Business Solutions.™*