



# Syncure™ S1027A

## Crosslinked Polyethylene

### Key Characteristics

Product Description	
Moisture Crosslinkable Polyethylene Compound. Available as Base Resin component for PolyOne Syncure System.	
General	
Material Status	• Commercial: Active
Regional Availability	• North America
Uses	• Wire & Cable Applications
Forms	• Pellets

### Technical Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.938 g/cm <sup>3</sup>	0.938 g/cm <sup>3</sup>	ASTM D1505
Apparent (Bulk) Density <sup>2</sup>	0.53 g/cm <sup>3</sup>	0.53 g/cm <sup>3</sup>	Internal Method
Melt Mass-Flow Rate (MFR) <sup>3</sup> (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 <sup>4</sup>	75 %	75 %	ASTM D2765
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>5</sup> (Break)	2600 psi	17.9 MPa	ASTM D638
Tensile Elongation <sup>5</sup> (Break)	450 %	450 %	ASTM D638
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deformation <sup>6</sup> (268°F (131°C))	3.0 %	3.0 %	UL 1581
Hot Creep Elongation <sup>7</sup>	35 %	35 %	
Aging	Typical Value (English)	Typical Value (SI)	
Retention of Tensile Elongation <sup>8</sup> 334°F (168°C), 75.0 mil (1.91 mm)	80 %	80 %	
Retention of Tensile Strength <sup>8</sup> 334°F (168°C), 75.0 mil (1.91 mm)	85 %	85 %	

### Additional Information

Tensile, Oven Aging, measured on a 100 phr S1027A / 20 phr V0022G system. Deformation, Hot Creep, and Gel measured on a 95 phr S1027A / 5 phr S1000B system; all cured for 6 hours in water at 90 degree C. Pellet appearance is 1/8" cylindrical.

### 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

<sup>8</sup> 168 hr, UL Standard