



# Syncure™ System S120NA

## Crosslinked Polyethylene

### Key Characteristics

#### Product Description

Syncure™ systems are two part moisture crosslinkable compounds. S120NA is suitable for applications requiring high density, high rigidity and operating temperatures up to 125°C. RoHS compliant. Graft resin component of this system has 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	• North America
Uses	• Appliances • Wire & Cable Applications
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Extrusion Coating

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.950	0.950	ASTM D792
Gel Content <sup>2</sup>	72 %	72 %	ASTM D2765
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>3</sup> (Yield)	4500 psi	31.0 MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break)	80 %	80 %	ASTM D638
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore D	64	64	
Shore D, 10 sec	59	59	
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
UL Temperature Rating	257 °F	125 °C	
Deformation <sup>4</sup> (268°F (131°C))	10 %	10 %	UL 1581
Hot Creep Elongation <sup>5</sup>	30 %	30 %	
Oxidation Induction Time	40 min	40 min	ASTM D3895
Aging	Typical Value (English)	Typical Value (SI)	
Retention of Tensile Elongation <sup>6</sup> 250°F (121°C), 75.0 mil (1.91 mm)	75 %	75 %	
Retention of Tensile Strength <sup>6</sup> 250°F (121°C), 75.0 mil (1.91 mm)	75 %	75 %	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Dielectric Constant (1 MHz)	2.10	2.10	ASTM D150
Dissipation Factor (1 MHz)	2.0E-3	2.0E-3	ASTM D150
Additional Information	Typical Value (English)	Typical Value (SI)	
Catalyst Masterbatch - S-1037B	5.0 %	5.0 %	
Grafted Base Resin - S1016A	95 %	95 %	

NOTE: The above represents Typical Properties measured on 14 AWG with 30 mil wall.

STORAGE AND HANDLING: Use within 48 hours once package is open to avoid self-curing and scrap.

**Notes**

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

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<sup>2</sup> Crosslinked PE, Method B (NonReferee Test)

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<sup>3</sup> Type IV, 20 in/min (510 mm/min)

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<sup>4</sup> 500 g, 1hr

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<sup>5</sup> SYV-40

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<sup>6</sup> 336 hr, UL Standard



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