



# Syncure™ System S112NA

## Crosslinked Polyethylene

### Key Characteristics

#### Product Description

Syncure™ systems are two part moisture crosslinkable compounds. S112NA is a CSA listed, high strength, colorable power cable insulation compound and 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
Features	• Industrial Resin
Uses	• Wire & Cable Applications
Wire Types	• NMD90 • RW-90
Agency Ratings	• CSA C-22.2 0.3 • IEC 60502
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Extrusion Coating

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	0.922	0.922	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)	2800 psi	19.3 MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break)	400 %	400 %	ASTM D638
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore D	53	53	
Shore D, 10 sec	47	47	
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deformation <sup>4</sup> (268°F (131°C))	10 %	10 %	UL 1581
Aging	Typical Value (English)	Typical Value (SI)	
Retention of Tensile Elongation <sup>5</sup>			
250°F (121°C), 75.0 mil (1.91 mm)	90 %	90 %	
Retention of Tensile Strength <sup>5</sup>			
250°F (121°C), 75.0 mil (1.91 mm)	95 %	95 %	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Dielectric Strength	1000 V/mil	39 kV/mm	ASTM D149
Dielectric Constant (1 MHz)	2.24	2.24	ASTM D150
Dissipation Factor (1 MHz)	8.0E-4	8.0E-4	ASTM D150
Additional Information	Typical Value (English)	Typical Value (SI)	
Catalyst Masterbatch - S-1000B	5.0 %	5.0 %	
Grafted Base Resin - S-1054A	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.

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**Notes**

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

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

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

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

<sup>5</sup> 336 hr, UL Standard

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