



# Syncure™ System S112FH

## Crosslinked Polyethylene

### Key Characteristics

#### Product Description

Syncure™ systems are two part moisture crosslinkable compounds. S112FH is an economical, RoHS Compliant, flame resistant building wire insulation. 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                  | • Building Wire Insulation • Wire & Cable Applications |
| Wire Types            | • NMD90  |
| 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  | 1.01                    | 1.01               | ASTM D792   |
| Gel Content <sup>2</sup>  | 68 %                    | 68 %               | 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)   | 430 %                   | 430 %              | ASTM D638   |
| 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><br>250°F (121°C), 75.0 mil (1.91 mm) | 90 %                    | 90 %               |             |
| Retention of Tensile Strength <sup>5</sup><br>250°F (121°C), 75.0 mil (1.91 mm)   | 95 %                    | 95 %               |             |
| Electrical  | Typical Value (English) | Typical Value (SI) | Test Method |
| Dielectric Constant (1 kHz)   | 2.45                    | 2.45               | ASTM D150   |
| Dissipation Factor (1 kHz)  | 4.0E-3                  | 4.0E-3             | ASTM D150   |
| Flammability  | Typical Value (English) | Typical Value (SI) | Test Method |
| Flame Test - Horizontal   |                         |                    |             |
| --  | Pass                    | Pass               | UL 1581     |
| --  | Pass                    | Pass               | CSA FT-2    |
| Additional Information  | Typical Value (English) | Typical Value (SI) |             |
| Catalyst Masterbatch - V-0030G RoHS   | 17 %                    | 17 %               |             |
| Grafted Base Resin - S-1054A  | 83 %                    | 83 %               |             |

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> 336 hr, UL Standard



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