



Syncure™ System S100FV

Crosslinked Polyethylene

Key Characteristics

Product Description

Syncure™ systems are two part moisture crosslinkable compounds, is a UL bulletinized high strength, RoHS compliant highly flame retardant insulation compound. 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	• Flame Retardant • Oil Resistant
Uses	• Insulation • Wire & Cable Applications
Wire Types	• SIS • XHHW • XHHW-2
Agency Ratings	• UL 44 • UL VW-1
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Extrusion Coating

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.31	1.31	ASTM D792
Gel Content ²	70 %	70 %	ASTM D2765
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength ³ (Yield)	3200 psi	22.1 MPa	ASTM D638
Tensile Elongation ³ (Break)	470 %	470 %	ASTM D638
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore D	55	55	
Shore D, 10 sec	48	48	
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
UL Temperature Rating	194 °F	90 °C	
Deformation ⁴ (268°F (131°C))	5.0 %	5.0 %	Internal Method
Aging	Typical Value (English)	Typical Value (SI)	Test Method
Retention of Tensile Elongation ⁵ 250°F (121°C), 30.0 mil (762.0 µm)	93 %	93 %	
Retention of Tensile Strength ⁵ 250°F (121°C), 30.0 mil (762.0 µm)	100 %	100 %	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Dielectric Strength	1200 V/mil	47 kV/mm	ASTM D149
Dielectric Constant (1 MHz)	2.61	2.61	ASTM D150
Dissipation Factor (1 MHz)	4.3E-3	4.3E-3	ASTM D150
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Test ⁶	Pass	Pass	UL 1581
Additional Information	Typical Value (English)	Typical Value (SI)	Test Method
Catalyst Masterbatch - V-0044G RoHS	50 %	50 %	
Grafted Base Resin - S1054A	50 %	50 %	

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

¹ Typical values are not to be construed as specifications.

² Crosslinked PE, Method B (NonReferee Test)

³ Type IV, 20 in/min (510 mm/min)

⁴ 2000 g, 1hr

⁵ 7 Days, UL Standard

⁶ VW-1



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