



Syncure™ System S100FH-UV

Crosslinked Polyethylene

Key Characteristics

Product Description

Syncure™ systems are two part moisture crosslinkable compounds. S100FH-UV is a UL bulletinized, RoHS compliant and flame retardant cable insulation compound. S100FH-UV is suitable for UL 4703 photovoltaic wire insulation not requiring an outer jacket. 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	• Sunlight Resistant (720 hours)
	• Low Temperature Resistant		
Uses	• Insulation	• Solar Panels	• Wire & Cable Applications
Wire Types	• RHH	• SIS	• XHH
	• RHW	• USE	• XHHW
	• RHW-2	• USE-2	• XHHW-2
Agency Ratings	• UL 1685	• UL 4703	
	• UL 44	• UL 854	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion Coating		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.03	1.03	ASTM D792
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength ² (Yield)	1760 psi	12.1 MPa	ASTM D638
Tensile Elongation ² (Break)	400 %	400 %	ASTM D638
Deformation Under Load ³ (268°F (131°C))	7.60 %	7.60 %	ASTM D621
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore D	51	51	
Shore D, 10 sec	45	45	
Thermal	Typical Value (English)	Typical Value (SI)	
UL Temperature Rating	194 °F	90 °C	
Aging	Typical Value (English)	Typical Value (SI)	
Retention of Tensile Elongation ⁴ 277°F (136°C), 30.0 mil (762.0 µm)	98 %	98 %	
Retention of Tensile Strength ⁴ 277°F (136°C), 30.0 mil (762.0 µm)	99 %	99 %	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Dielectric Strength	1100 V/mil	43 kV/mm	ASTM D149
Dielectric Constant (1 MHz)	2.30	2.30	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 - Horizontal	Pass	Pass	UL 1581

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Additional Information	Typical Value (English)	Typical Value (SI)
Catalyst Masterbatch - V0022G-UV RoHS	17 %	17 %
Grafted Base Resin - S1054A	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

- ¹ Typical values are not to be construed as specifications.
- ² Type IV, 20 in/min (510 mm/min)
- ³ 2000 g, 1 hr.
- ⁴ 168 hr, UL Standard

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