



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	<ul style="list-style-type: none"> • Flame Retardant • Low Temperature Resistant • Oil Resistant • Sunlight Resistant (720 hours)
Uses	<ul style="list-style-type: none"> • Insulation • Solar Panels • Wire & Cable Applications
Wire Types	<ul style="list-style-type: none"> • RHH • RHW • RHW-2 • SIS • USE • USE-2 • XHH • XHHW • XHHW-2
Agency Ratings	<ul style="list-style-type: none"> • UL 1685 • UL 44 • UL 4703 • UL 854
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Extrusion Coating

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.10	1.10	ASTM D792
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength ²	2500 psi	17.2 MPa	ASTM D638
Tensile Elongation ² (Break)	400 %	400 %	ASTM D638
Deformation Under Load ³ (268°F (131°C))	5.00 %	5.00 %	ASTM D621
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)	
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)	94 %	94 %	
Retention of Tensile Strength ⁴ 277°F (136°C), 30.0 mil (762.0 µm)	97 %	97 %	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Dielectric Strength	1400 V/mil	53 kV/mm	ASTM D149
Dielectric Constant (1 MHz)	2.45	2.45	ASTM D150
Dissipation Factor (1 MHz)	8.0E-3	8.0E-3	ASTM D150

Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Test			UL 44
FV-1	Pass	Pass	
Horizontal	Pass	Pass	
Additional Information	Typical Value (English)	Typical Value (SI)	
Catalyst Masterbatch - V0022G-UV RoHS	30 %	30 %	
Grafted Base Resin - S1054A	70 %	70 %	

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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