



Syncure™ System S112BL

Crosslinked Polyethylene

Key Characteristics

Product Description

Syncure™ systems are two part moisture crosslinkable compounds. S112BL is a CSA listed, high strength, weather resistant, black (2.5% carbon black) cable insulation compound. 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	• Weather Resistant
Uses	• Outdoor Applications • Wire & Cable Applications
Wire Types	• RW-90 • RWU-90
Agency Ratings	• CSA C-22.2 0.3
Appearance	• Black
Forms	• Pellets
Processing Method	• Extrusion Coating

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	0.935	0.935	ASTM D792
Gel Content ²	72 %	72 %	ASTM D2765
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength ³ (Yield)	2300 psi	15.9 MPa	ASTM D638
Tensile Elongation ³ (Break)	500 %	500 %	ASTM D638
Tear Resistance ⁴	470 lbf/in	82.3 kN/m	ASTM D1004
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore D	52	52	
Shore D, 10 sec	48	48	
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deformation ⁵ (268°F (131°C))	7.5 %	7.5 %	UL 1581
Aging	Typical Value (English)	Typical Value (SI)	
Retention of Tensile Elongation ⁶			
250°F (121°C), 75.0 mil (1.91 mm)	90 %	90 %	
Retention of Tensile Strength ⁶			
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	2.45	2.45	ASTM D150
Dissipation Factor	2.0E-3	2.0E-3	ASTM D150
Additional Information	Typical Value (English)	Typical Value (SI)	
Catalyst Masterbatch - S-1044B	10 %	10 %	
Grafted Base Resin - S-1054A	90 %	90 %	

STORAGE AND HANDLING: Use within 48 hours once package is open to avoid self-curing and scrap.

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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 Die C, 2 in/min

⁵ 500 g, 1hr

⁶ 336 hr, UL Standard

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