



» PRODUCT BULLETIN

Syncure™ XLPE Cross-linkable Polyethylene Formulations

One-graft solutions for wire and cable applications

The Syncure™ XLPE system is a two-step, silane-grafted, moisture cross-linkable polyethylene solution for wire and cable jacketing and insulation. Syncure XLPE formulations allow for two distinct advantages over regular polyethylene: greatly improved heat resistance and oil resistance.

Produced by two-step Sioplas technology, Syncure XLPE offers the processor significant advantages and economies over organic peroxide, radiation, and reactor copolymer crosslinking processes. In addition, the Syncure resin is compatible with a broad range of catalysts, allowing processors to stock and use a singular graft solution to produce a wide range of solid, coextruded profiles, films, or injection molded parts.

KEY CHARACTERISTICS

- Resistant to heat, oil, creep and abrasion
- Flame performance
- Low temperature performance
- Temperature ratings up to 125°C
- High extrusion speeds, ambient curing properties and low capital investment
- Conforms to UL-44, UL-4703 and CSA 22.2 requirements

MARKETS AND APPLICATIONS

Syncure XLPE formulations provide economical solutions for multiple end-use commercial and residential applications. Suitable for both vertical and horizontal cable systems, the materials offer safe, sustainable and efficient solutions for low voltage power cable systems, including in solar and other specialty market applications.





TECHNICAL PROPERTIES

TEST	STANDARD	UNIT	SYNCURE™ XLPE S1054A ROHS NATURAL
Specific Gravity	ASTM D1505	-	0.919
Melt Flow Index, 190°C/2.16kg	ASTM D1238	g/10min	1.045
Tensile Strength at Break	ASTM D638	psi	2500
Tensile Elongation at Break	ASTM D638	%	450
Delta Torque	Internal	g-m	2154
Moisture Content	ASTM D2974	%	0.0004
Gel Content	ASTM D2765	%	73
Hot Creep Elongation	UL 2556	%	49
Hot Deformation	UL 2556	%	6

*Gel Content, Hot Creep Elongation and Hot Deformation measured on 95 phr S1054A / 5 phr S100B system, and cured by autoclave for 9 hours

1.844.4AVIENT
www.avient.com



Copyright © 2023, Avient Corporation. Avient makes no representations, guarantees, or warranties of any kind with respect to the information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as “typical” or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the information. Avient makes no warranties or guarantees respecting suitability of either Avient’s products or the information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the information and/or use or handling of any product. AVIENT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the information or products reflected by the information. This literature shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.