

PRODUCT BULLETIN

Syncure™ XLPE Cross-linkable Polyethylene Formulations

DBDPE-free solutions for low voltage cable systems

The Syncure™ XLPE 200 Series is comprised of engineered, moisture cross-linkable solutions formulated without decabromodiphenyl ethane (DBDPE). These DBDPE-free grades satisfy regulatory and performance demands by using an alternative flame retardant while maintaining UL 44 compliance and comparable performance to traditional Syncure XLPE materials.

With excellent temperature ratings and flame performance, these flame retardant polymers are used for insulation in low voltage cable systems, such as building wires, tray cables, and service entrance cables. Extrudable and easy to process, these formulations are produced by crosslinking a polyethylene base resin and DBDPE-free catalyst using the Sioplas method, which offers significant advantages and economies over alternative crosslinking processes.

The development of these high-performing materials grants wire and cable producers the flexibility to adapt to evolving regulations in the market.

KEY CHARACTERISTICS

- DBDPE-free
- Excellent flame performance
- Resistance to heat, oil, creep, and abrasion
- Temperature rating up to 90°C
- High extrusion speeds
- UL 44 compliant

AVIENT™

TECHNICAL PROPERTIES

System	Syncure XLPE S200FH	Syncure XLPE S200FV
Applications	Building Wire, Tray Cable, Service Entrance	Building Wire, Tray Cable, Service Entrance
Specification	UL 44	UL 44
Wire Type	RHW-2, RHW, RHH, XHHW-2, XHH, XHHW, SIS	RHW, RHH, RHW-2
Components	78% S1054A 22% SC5400-0002 RoHS MB ALT FR	50% S1054A 50% SC5400-0003 RoHS MB ALT FR
Features	Horizontal Flame, DBDPE-free	VW-1, DBDPE-free
General Properties		
Specific Gravity (g/cm^3)	1.01	1.31
Hardness Shore D, 10sec	47	48
Gel %	68	70
Tensile Properties		
Tensile Strength (psi)	2800	3200
Elongation %	400	470
Tensile Retention %	95	100
Elongation Retention %	90	93
Electrical		
Dielectric Strength (V/mil)	1000	1200
Dielectric Constant	2.31	2.61
Dissipation Factor %	0.0012	0.0043
Thermal		
Temperature Rating °C	90	90
Heat Deformation %	10	5

1.844.4AVIENT
www.avient.com