

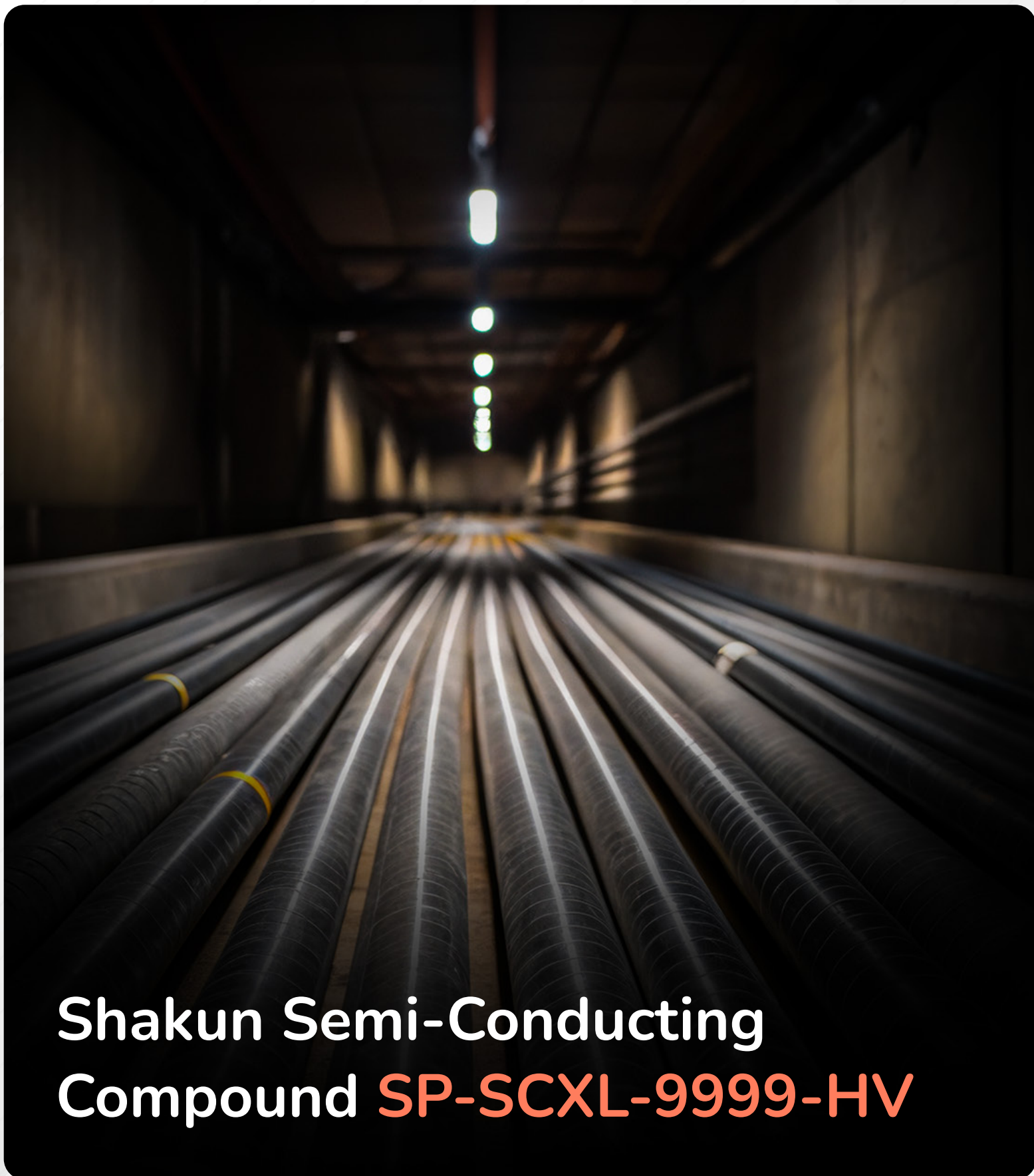


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Shakun Semi-Conducting
Compound **SP-SCXL-9999-HV**



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SP-SCXL-9999-HV is a high-performance, semi-conducting, cross-linkable shielding compound designed for high voltage power cables up to 154kV. Engineered to deliver superior surface smoothness and electrical conductivity, it ensures excellent scorch resistance and thermal stability in high-temperature environments. This makes it ideal for demanding cable applications where long-term performance and reliability are critical.

What is SP-SCXL-9999-HV?

SP-SCXL-9999-HV is a high-performance, semi-conducting, cross-linkable shielding compound designed for high-voltage power cables up to 154 kV. Produced in an ultra-clean, automated environment with zero human contact, it delivers superior surface smoothness and electrical conductivity. With excellent scorch resistance and thermal stability in high-temperature environments, it is ideal for demanding cable applications where long-term performance and reliability are critical.

It complies with key international standards for high-voltage applications:

- IEC: 60840 / ANSI / ICEA S-93-639
- AEIC: CS9 / ANSI / ICEA S-94-649
- ANSI / ICEA S-108-720
- Cenelec HD 632 S1

Why Semi-Conductive Shielding is Critical

In high-voltage environments, semi-conductive shielding prevents electrical stress concentration and ensures reliable current dissipation. This layer plays a vital role in enhancing cable lifespan, maintaining system integrity, and ensuring operational safety. **SP-SCXL-9999-HV** is specifically engineered to meet these needs, offering durability against high voltage stress, thermal exposure, and mechanical demands.

Key Benefits of SP-SCXL-9999-HV

- **Superior Surface Smoothness**
Minimizes electrical field irregularities, ensuring cable consistency.
- **Excellent Electrical Conductivity**
Provides reliable performance across demanding high-voltage applications.
- **High Resistance to Scorching**
Optimized for smooth extrusion without premature curing.
- **Thermal Stability at Elevated Temperatures**
Maintains performance under continuous high-heat environments.
- **Standards Compliance for Global Markets**
Fully compliant with IEC, ANSI, ICEA, and AEIC requirements for high-voltage systems.
- **Processing Flexibility**
Designed for compatibility with standard

Typical Applications

SP-SCXL-9999-HV is widely used in:

- High Voltage Power Cables up to 154kV
- Conductor Shielding
- Insulation Shielding

Ensures safety, durability, and long-term performance for critical energy infrastructure.

Physical Properties

Properties	Test Method	Unit	Typical Value
Density at 23°C	ASTM D 1505	g/cm ³	1.14
Tensile Strength	ASTM D 638	MPa	16
Elongation at break	ASTM D 638	%	225
Retention in Tensile Strength	ASTM D 638	%	>90
Retention in Elongation	ASTM D 638	%	>85
Moisture Content	Karl Fischer	ppm	<300
Low Temperature Brittleness	ASTM D 746	°C	<-40
DC Volume Resistivity at 23°C	ASTM D 257	Ohm.cm	<50
DC Volume Resistivity at 90°C	ASTM D 257	Ohm.cm	<250

*Tensile properties on 1mm extruded tape

*Data should not be used for specification work

