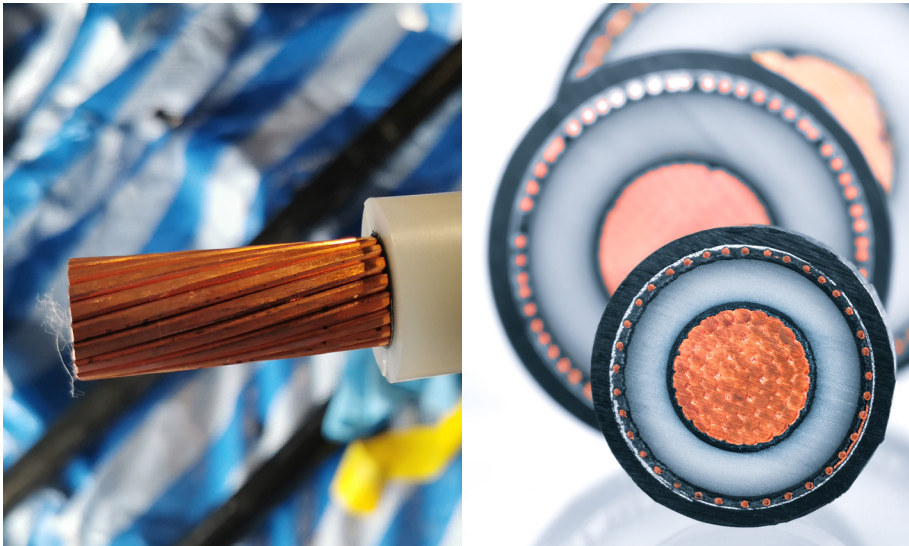


Lucalen for MV & HV power cables

Reliable performance where it matters most



Meeting today's power cable challenges

Medium- and high-voltage cable systems are expected to deliver long service life, consistent electrical performance, and high reliability — even under demanding conditions. At the same time, cable manufacturers must manage increasingly complex multilayer designs while maintaining efficient and stable processing.

Lucalen ethylene-acrylate copolymers help cable producers overcome these challenges by improving layer performance, adhesion, durability, and processing flexibility across the cable structure.

Challenges cable manufacturers face

- **Inconsistent semiconductive layer performance:** Poor carbon black dispersion and uneven layer quality can lead to conductivity variation, electrical stress, and long-term performance risks.
- **Weak interlayer adhesion:** Insufficient bonding between layers may result in delamination, reduced mechanical integrity, and durability concerns.
- **Moisture-related ageing and water treeing:** Moisture ingress remains a key contributor to premature cable ageing, requiring materials that support additive efficiency and service life.
- **Processing limitations:** Formulators often face trade-offs between flexibility, adhesion, thermal performance, and processability.

Lucalen solutions

- **Improved semiconductive layer quality:** *Lucalen* supports better carbon black dispersion, uniform conductivity, and stable electrical performance, offering broad processing flexibility.
- **Strong, reliable adhesion:** *Lucalen* bonds effectively to polyolefins, metals, and polar substrates, enabling robust multilayer constructions with reduced delamination risk. This makes it valuable in multilayer constructions such as bonding layers, semi-conductive shields, jacketing blends and anti-corrosion coatings.
- **Support for long-term durability:** *Lucalen* contributes to moisture resistance by introducing polarity and enabling better dispersion of water-tree retardant additives.
- **Easier processing:** A balanced property profile delivers excellent flexibility, good thermal and mechanical resilience, and smooth extrusion behavior.

By integrating *Lucalen* into MV and HV cable designs, manufacturers can improve electrical and mechanical reliability, strengthen interlayer adhesion, enhance durability in demanding environments, and increase formulation and processing flexibility.

Lucalen is a versatile, value-adding solution that helps cable manufacturers build more reliable, longer-lasting power cable systems.

Recommended *Lucalen* grades for MV & HV applications

Lucalen A2700M / A2700P – High-flow EBA copolymers (~17% acrylate content) designed for semiconductive compounds and halogen-free flame-retardant (HFFR) formulations.

Lucalen A2920M – EBA-acrylic acid terpolymer offering strong adhesion to metals and excellent bonding performance in coatings and anticorrosion layers.

LYB does more than supply materials - we deliver solutions. Contact us to discover how *Lucalen* copolymers can transform your MV/HV cable production: wireandcable@lyondellbasell.com

About us

We are LyondellBasell (LYB) – a leader in the global chemical industry creating solutions for everyday sustainable living. Through advanced technology and focused investments, we are enabling a circular and low carbon economy. Across all we do, we aim to unlock value for our customers, investors and society. As one of the world's largest producers of polymers and a leader in polyolefin technologies, we develop, manufacture and market high-quality and innovative products for applications ranging from sustainable transportation and food safety to clean water and quality healthcare. For more information, please visit www.lyb.com or follow @LyondellBasell on LinkedIn.

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