

# **POLYOLEFIN SOLUTIONS FOR MODERN CABLE MANUFACTURING**

# Innovative Polyolefin Compounds for modern cable manufacturing

At HEC-Holland, we provide a comprehensive portfolio of polyolefin materials for the global wire and cable industry. Our solutions support cable manufacturers in producing reliable, high-performance cables for power transmission, communication networks, fibre optic infrastructure and renewable energy applications.

By combining technical expertise, global sourcing capabilities and strong supplier partnerships, we deliver materials that meet the highest standards for quality, consistency and processability. From insulation and jacketing compounds to PBT materials and base polymers, our polyolefin solutions are designed to support efficient production and long-term cable performance.

## Applications

Our Polyolefin products are versatile and suitable for a wide range of cable constructions, including:

- Low, Medium, High & Extra High Voltage Power Cables
- Submarine & Offshore Cables
- Data Communication Cables
- Fibre Optic Cables
- Solar & Renewable Energy Cables
- Industrial & Specialty Cables
- Automotive Applications

## Sustainability & Circularity

HEC-Holland believes that performance and sustainability go hand in hand. As the cable industry continues to evolve, manufacturers are increasingly seeking materials that not only deliver technical excellence but also contribute to more responsible resource management and environmental stewardship.

Polyolefin materials support sustainability objectives in several ways. Their durability and long service life help extend cable lifespan, reducing the need for premature replacement and lowering overall material consumption. Efficient processing characteristics can also contribute to reduced production waste and improved manufacturing efficiency.

Together with our partners and customers, we support initiatives that promote recycling, circularity and the development of more sustainable material solutions for the global wire & cable industry. By encouraging innovation throughout the value chain, we aim to help create cable systems that meet both performance expectations and environmental goals.

## Key focus areas:

- Recyclable cable constructions that facilitate material recovery at end-of-life
- Reduced production waste through efficient processing and optimized manufacturing
- Improved material efficiency by maximizing performance with responsible resource use
- Circular economy initiatives that support reuse, recycling and sustainable material flows
- Bio-based and recycled solutions that help reduce dependence on virgin fossil resources
- Lower environmental impact through longer service life and responsible material selection

# Designed for performance built for reliability

Polyolefin materials have become the preferred choice for modern cable manufacturing due to their unique combination of electrical, mechanical and processing properties. Their versatility allows cable manufacturers to meet demanding technical requirements across power, communication, fibre optic and renewable energy applications while maintaining efficient production processes and long-term product performance.

## Excellent processability

Polyolefin compounds are designed to deliver stable and consistent extrusion performance across a wide range of cable manufacturing processes. Their excellent flow characteristics help ensure smooth production, uniform cable dimensions and reduced downtime. As a result, manufacturers can improve productivity, minimize material waste and achieve reliable quality from batch to batch.

## Outstanding electrical properties

One of the key advantages of polyolefin materials is their excellent dielectric performance. They provide reliable insulation and signal integrity, making them suitable for both power transmission and data communication applications. Their low dielectric losses and consistent electrical characteristics contribute to efficient energy transfer and dependable network performance throughout the cable's service life.

## Long-term reliability

Polyolefin-based cable materials are engineered to withstand demanding operating conditions over extended periods of time. They offer excellent resistance to thermal ageing, environmental stress and electrical loading, helping cables maintain their performance throughout decades of service. This long-term reliability reduces maintenance requirements and supports lower total lifecycle costs.

## Mechanical protection

Modern cable systems are often exposed to challenging environmental conditions. Polyolefin compounds provide strong resistance to abrasion, impact, moisture, chemicals and weathering. These properties help protect cable constructions during installation and operation, ensuring durability in both indoor and outdoor environments.

## Global availability

Through its extensive network of leading polymer producers and logistics partners, HEC-Holland ensures reliable access to high-quality polyolefin materials worldwide. Our global sourcing capabilities help customers maintain supply continuity, reduce procurement risks and support projects across multiple regions and markets.

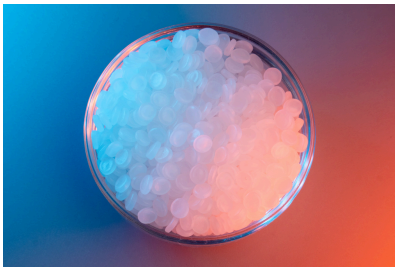
## Customized solutions

Every cable application has unique technical requirements. HEC-Holland works closely with customers and suppliers to identify materials that match specific performance targets, processing conditions and regulatory requirements. Whether for standard products or specialized cable designs, we help deliver solutions that support optimal manufacturing and end-use performance.

# Our Polyolefins

## for industrial cable applications

HEC-Holland offers a complete portfolio of polyolefin materials for virtually every cable application. Each product group fulfills a specific function within cable constructions, from power insulation to jacketing and base resins. Our solutions combine consistent quality, excellent processability and tailored performance, meeting the demanding requirements of modern cable manufacturing.



### Power Insulation Compounds

Engineered for low, medium, high and extra-high voltage cable systems. They provide excellent dielectric performance, long-term reliability and consistent processing for demanding land, submarine and renewable energy cable applications.

### Data Insulation Compounds

Designed for high-speed communication cables with low signal loss and excellent electrical properties. These materials are widely used in telecom, coaxial, LAN and data cable constructions.



### Jacketing Compounds

Sheathing compounds provide outstanding resistance to UV, moisture, abrasion and weathering. These materials help extend cable lifetime while maintaining flexibility and processability. Jacketing compounds are suitable for power, communication, fibre optic and industrial cable applications.

### PBT Compounds

High-performance PBT grades are widely used in loose tube fibre optic cables. Offering excellent dimensional stability, low shrinkage, fibre protection and consistent extrusion performance. PBT is an essential material for modern fibre optic cable manufacturing.

### Base Resins & EVA

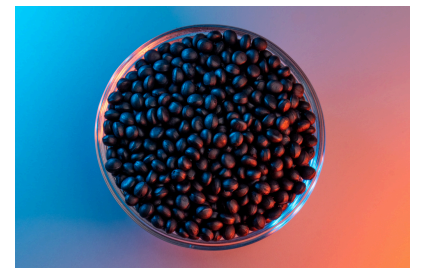
Base resins and EVA materials form the foundation for a wide range of cable compounds and specialty formulations. These easy to process and versatile materials support insulation, jacketing and custom cable compound solutions for numerous cable applications.

### HFFR Compounds

Halogen-Free Flame Retardant compounds combine excellent fire safety with reliable mechanical and electrical performance. Designed for modern cable constructions that comply with stringent fire regulations while producing low smoke and no corrosive halogen gases during combustion.

### Solar Compounds

Specially developed for photovoltaic cable systems, these compounds offer outstanding UV resistance, weatherability, and long-term thermal stability. They withstand decades of outdoor exposure in demanding renewable energy installations.



# Polyolefins for cable manufacturers

## low, medium & high performance

At HEC-Holland, we offer a wide range of polyolefin compounds and resins for cable manufacturers worldwide. From standard grades to customer-specific solutions, our portfolio supports applications ranging from low voltage power cables to extra-high voltage, fibre optic, communication and renewable energy cables. The products shown in this brochure represent a selection of our portfolio and illustrate the wide variety of solutions available for modern cable production.

### Power Cable Insulation Compounds

Product	Description	Density (g/cm <sup>3</sup> )	Tensile strength (kg/cm <sup>2</sup> )	Elongation (%)
<b>XLPE Insulation Compounds</b>				
HEC-XPEL-23N	LV XLPE	0.924	147	≥ 200
HEC-XPEL-23N-GREEN	LV XLPE green	0.924	147	≥ 200
HEC-XPEM-61	MV XLPE	0.935	147	≥ 200
HEC-XPEM-61-GREEN	MV XLPE green	0.935	147	≥ 200
CLNB-8141S	MV XLPE ≤ 69KV Plain	0.921	200	550
CLNA-TR8142EC	MV XLPE Tree retardant	0.922	200	550
CLNA-8141SC	HV XLPE ≤ 161KV	0.921	200	550
CLNA-8141EHV	EHV XLPE ≤ 230KV	0.921	200	550
CLNA-8141SEHV	SEHV XLPE > 230KV	0.921	200	550
<b>Submarine &amp; Offshore Compounds</b>				
CLNS-TR8142SC	Subsea HV XLPE ≤ 161KV, water tree retardant	0.922	200	550
CLNS-8141SC	Subsea HV XLPE ≤ 161KV	0.921	200	550
CLNS-8141EHV	Subsea EHV XLPE ≤ 230KV	0.921	200	550

## Power Cable Insulation Compounds

Product	Description	Density (g/cm <sup>3</sup> )	Tensile strength (kg/cm <sup>2</sup> )	Elongation (%)
<b>Semiconductive Compounds</b>				
HEC-SC-230	MV adhesive	1.135	193	245
HEC-SC-250	MV bonded	1.150	193	240
HEC-SC-310	EPR easy strippable	1.170	142	230
HEC-SC-330	MV strippable	1.180	152	260
HEC-SC-330NP	Semiconductive cleaning compound	1.180	101	180
HEC-SC-350	MV easy strippable	1.170	163	280
HEC-SC-350S	MV strippable super fast cure	1.145	163	300
HEC-SC-150HV	HV bonded	1.150	183	210
HEC-SC-275HV	EHV bonded	1.120	183	250
HEC-SC-500HV	SEHV bonded	1.126	163	270
CTBA-8730BK	MV semiconductive bonded	1.140	190	200
CTBA-8740BK	HV semiconductive bonded	1.140	150	190
CTBA-8745BK	EHV semiconductive bonded	1.140	150	190
CTBA-8750BK	SEHV semiconductive bonded	1.120	>150	>150
CTBA-8760BK	SEHV DC semiconductive bonded	1.110	>150	>200
<b>PP Power Cable Compounds</b>				
HEC-TS-PP100-LV	LV insulation	0.890	265	700
HEC-TS-PP100-INS	MV insulation	0.910	254	700
HEC-TS-PP200-SCI	MV semiconductive bonded	1.150	173	500
HEC-TS-PP300-SCO	MV semiconductive strippable	1.120	137	500
HEC-TS-PP500IN	HV PP insulation	0.88	275	730
HEC-TS-PP500SC	HV PP semiconductive	1.03	200	620

## Data Insulation Compounds

Product	Description	Density (g/cm <sup>3</sup> )	Tensile strength (kg/cm <sup>2</sup> )	Elongation (%)
CLNA-8600L	LDPE gas injection	0.921	120	600
CHNA-8380	HDPE - foam, skin & LAN cable	0.945	240	550
CHYA-870F	HDPE - Cellular - foam, skin & PEF cable	0.948	230	500
CLNA-8600H	HDPE gas injection	0.962	260	500
HEC-PPC-100	Polypropylene composite material alloy	0.900	250	8 (yield)

## Jacketing Compounds

Product	Description	Density (g/cm <sup>3</sup> )	Tensile strength (kg/cm <sup>2</sup> )	Elongation (%)
HEC-HPEJ-87	HDPE (natural & black)	0.940	≥ 203	600
HEC-HPEJ-87-BK-RE	HDPE black recycled	0.940	≥ 127	≥ 300
HEC-SC-600	HDPE semiconductive	1.050	203	>450
HEC-SC-660	HDPE semiconductive	1.050	224	560
HEC-SC-600PP	PP semiconductive	1.025	137	>350
HEC-LPES-2150	LDPE	0.910 (natural) 0.93 (black)	188	700
HEC-LLPES-2160	LLDPE	0.930 (natural) 0.936 (black)	275	850
CLBB-850BK	LDPE black	0.933	165	550
CLBA-8450BK	LLDPE black	0.934	180	800
CMBA-8240BK	MDPE black	0.949	300	800
CHBA-8241BK	HDPE black	0.955	300	800

## PBT Compounds

Product	Description	Density (g/cm <sup>3</sup> )	Tensile strength (kg/cm <sup>2</sup> )	Elongation (%)
HEC-DK-5036	Loose tube OFC	1.306	520	>250
HEC-PBT-6800-FR	Loose tube OFC HFFR	1.310	400	

## Ethylene Vinyl Acetates

Product	VA index (wt%)	MFI (g/10min)
EVA-1540	40	60
EVA-1828	28	4
EVA-1340	40	3
HEC-EVA-2502	25	2
HEC-EVA-2803	28	3
HEC-EVA-2806	28	6
HEC-EVA-3302	33	2
HEC-EVA-3312	33	12
HEC-EVA-3330	33	30
HEC-EVA-4003	40	3
HEC-EVA-4055	40	55
HEC-EVA-16015	16	2
HEC-EVA-18025	18	2.5
HEC-EVA-33002	33	0.2
HEC-EVA-33055	33	5.5
HEC-EVA-33075	33	7.5

## Base Resins

Product	Description	Density (g/cm <sup>3</sup> )	Tensile strength (kg/cm <sup>2</sup> )	Elongation (%)
CLNA-8262	LLDPE	0.922	180	600
CLNA-8400	LLDPE	0.920	180	600

## HFFR Compounds

Product	Description	Density (g/cm <sup>3</sup> )	Melt flow rate (g/10min)	Oxygen index (%)
HEC-HFFR-91	Thermoplast HFFR jacketing	1.300	10.5	≥ 31
HEC-HFFR-92	Thermoplast HFFR jacketing	1.480	7.0	≥ 38
HEC-HFFR-92.1	Thermoplast HFFR jacketing & insulation	1.480	10.5	≥ 44
HEC-SC-3000-NFR	Silane XLPE HFFR	1.387		26.5

## Solar Compounds

Product	Description	Density (g/cm <sup>3</sup> )	MFI (g/10min)	Oxygen index (%)
HEC-SH-300PV-EN	Silane XLPE insulation & jacketing	1.420	2.0	35
HEC-SH-300PV-I	E-beam XLPE insulation	1.370	2.0	28
HEC-SH-300PV-S	E-beam XLPE jacketing	1.370	2.0	30

# Polyolefin Solutions for every cable design

HEC-Holland's Polyolefin product line help to streamline production processes while enhancing cost efficiency. We offer a comprehensive range of innovative polyolefin compounds for various types of cables, suitable for both overhead and underground applications. The products offer a high cost-effectiveness and performance, extending the lifespan of cable systems and ensuring a reliable power supply.

## High-Quality, Cost-Effective Cable Compounds

Our cable compounds are based on advanced polyolefin technology, designed to deliver superior electrical and mechanical properties.

### Benefits Include:

- **Enhanced Production Efficiency:** Simplified processes and reduced waste lead to increased cable production using existing equipment.
- **Faster Production Cycles:** Requiring less labor and enabling quicker turnaround times.
- **Extended Production Campaigns:** Up to several weeks, made possible by our unique scorch retardant solutions.
- **Ambient Crosslinking:** Eliminates the need for high temperatures, saving energy.
- **Reduced Environmental Impact:** Our solutions contain no harmful additives, contributing to a safer and more sustainable production process.

Our Polyolefin product range is available worldwide, supported by comprehensive technical assistance to meet your specific needs.

## Sustainability and Recycling

HEC-Holland is a leading provider of innovative, value-creating polyolefin solutions for the wire and cable industry. We pride ourselves on supplying high-performance materials that ensure cables function reliably over extended periods. By focusing on durability, we reduce the need for frequent replacements, minimizing environmental impact.

We recognize our responsibility to address cable waste and are committed to advancing recycling technologies. There are two primary approaches to responsible end-of-life management for polyolefin cables:

1. **Energy Recovery:** Converting waste into energy for heating or power generation.
2. **Mechanical Recycling:** Recycling waste material, which can then be combined with virgin polyolefins and reused in new applications—a process proven on an industrial scale.

Cable waste recycling positively contributes to CO2 emission reduction. For more information on our cable solutions, please contact your HEC-Holland representative.

Manufactured with a focus on sustainability, our premium polyolefin compounds offer the same high performance as traditional materials, while reducing reliance on fossil-based resources. Meet your sustainability goals with our innovative solutions, designed to maintain high industry standards without compromising on quality or performance.

# HEC-Holland

## your preferred supplier

In the dynamic world of cable manufacturing, selecting the right supplier for raw cable materials is paramount. At HEC-Holland, we stand as a beacon of excellence, offering expertise and a commitment to innovation. Here's why you should partner with us for your next cable project:

- **Ample Knowledge and Experience** With years of experience in the wire & cable industry, we deliver invaluable insights and expertise to every project.
- **Tailor-Made Solutions** We understand that one size does not fit all. Our team excels in crafting customised solutions to meet your specific needs and requirements.
- **Customer-Specific Products** From concept to creation, we work closely with our customers to develop products tailored to their unique specifications.
- **Process Optimization** Leveraging the latest technologies and methodologies, we optimize processes to enhance efficiency and quality across the board.
- **Lean Supply Chain Management** Our streamlined supply chain management ensures timely delivery of materials, reducing downtime and maximizing productivity.
- **Own Slitting Service** With our in-house slitting service, we offer precision-cut materials tailored to your exact dimensions, minimizing waste and inefficiency.
- **Own Warehouse & Global Distribution Network** With a warehouse and strong global network of distribution centers strategically located across the globe, we ensure seamless access to materials wherever you are.
- **Dedicated, Strong Partnerships** We believe in forging strong partnerships with both our customers and suppliers, fostering collaboration and mutual success.

HEC-Holland stands as a trusted partner in the wire & cable industry.

# YOUR CABLE, OUR CONNECTION



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