PRODUCT CATALOGUE

Polyexcel

ENERGY IN COMPOUNDS

OUR CONVICTION:
THAT **DEVELOPMENT**
IS MADE UP OF MANY
CONNECTIONS.

We believe that we can always do better: both with our products and processes and in our interpersonal relationships, through a constructive dialogue with our clients and partners.

POLYEXCEL.
EXCELLENCE IN POLYMERS FOR WIRES AND CABLES.
AGILITY, TECHNOLOGY AND SUSTAINABILITY.

Polyexcel
ENERGY IN COMPOUNDS

When we look at the origin of the word “excellence”, we find that it means grandeur, elevation, a superior aspect. Such notions are pillars to us when developing new products and also when enhancing those we already offer, which are renowned in Brazil and in the rest of Latin America for their quality.

SYNERGY WITH THE MARKET
TO REACH INNOVATION

Our vision is to be the best polymeric compounds manufacturer in Brazil, offering clients and partners a solid relationship that focuses on continuous improvement, competitiveness and social and environmental responsibility.
We focus on what our clients want to focus on. Our products and services are developed to achieve an excellent performance.
This rigorous work is applied when we are formulating our compounds; when they are being tested for quality in our own certified lab and also at the pilot plants that simulate de production processes of wire and cable industries; and, finally, when our technical team visits the clients’ factory.

We are Polyexcel.

Excellence in polymers for wires and cables.

CHECK OUT POLYEXCEL’S PRODUCT LINES

High-technology polymeric compounds for the wires and cables market.

- **POLYCROSS**
- **POLYSIO**
- **POLYPLAST**
- **POLYTOX**
- **POLYCOLOR**
- **POLYCOND**
- **POLYSOLUTIONS**

THERMOSET POLYETHYLENES

ENERGY

Aluminum / Copper

Low tension – up to 1 kV
- XLPE
- XLPE with UV
- HEPR

Medium tension – 15 to 35 kV
- XLPE
- XLPE anti-tracking
- Semiconductor

THERMOPLASTIC POLYETHYLENES

ENERGY

Aluminum / Copper

- LDPE NT/BK
- MDPE NT/BK
- HDPE NT/BK
- PE for Skin NT
- Semiconductor

TELECOMMUNICATIONS

Metallic wires / Optical fiber

- LDPE NT/BK
- MDPE NT/BK
- HDPE NT/BK

HALOGEN-FREE COMPOUNDS

ENERGY • HFFR • ATOX • LSZH

Aluminum / Copper

- Thermoplastic
- Thermoset – solar

TELECOMMUNICATIONS

Metálico / Fibra Óptica

- With low friction
- Without low friction

MASTER BATCH

ENERGY

Aluminum / Copper

- PE base for pigmentationo
- PE base for carbon black

TELECOMMUNICATIONS

Metallic wires / Optical fiber

- PE base for pigmentation
  Ask for available colors

SPECIALTY ITEMS AND ADD-ONS

ENERGY

- WB non-conductive tapes
- WB semi-conductive tapes
- WB wires

TELECOMMUNICATIONS

Optical fiber

- PBT for loose tube
- GEL for nucleus and for loose tube
- WB wires or filler
- WB non-conductive tapes
- FRP with or without coating
- ARP with or without coating
- PU fiberglass wires

POLYCROSS

• XLPE • XLPE AT • HEPR

The Polycross compounds are made from polyethylene that is reticulated via Sioplas, which makes them thermoset (XLPE). During this reaction, a tridimensional net is formed (crosslink), which cannot be processed or dissolved without ensuing the polymer's degradation. Therefore, they are not deformed by heat, and can withstand operating temperatures of over 90°C.

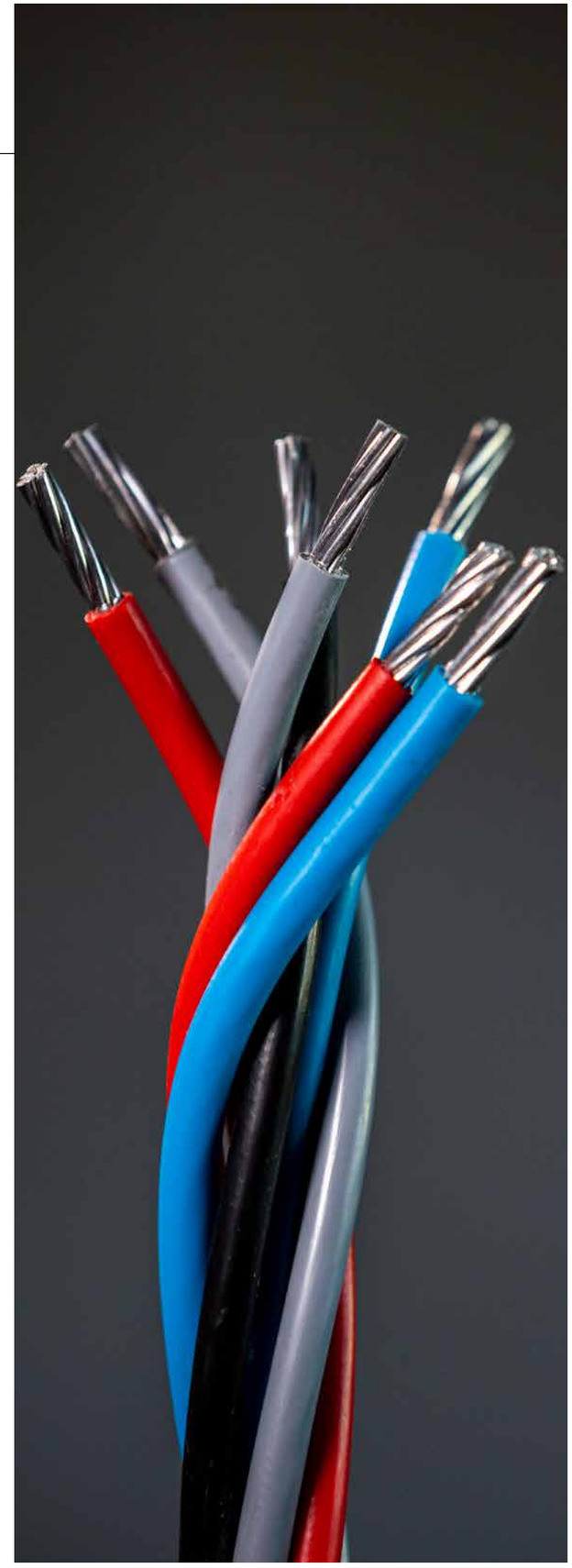
The main advantage of cables with thermoset isolation is that they can conduct a larger current when compared to a cable of the same cross-section that has thermoplastic isolation.

APPLICATION

- Insulation and covering of wires and cables with copper or aluminum conductors.

FEATURES

- Highly resistant to thermal oxidation.
- Stable under UV light.
- Resistant to tracking.
- Neutralizes metallic ions.



POLYSIO

• XLPE • XLPE AT • HEPR

The products of the Polysio line are made from reticulated polyethylene that is produced using a reactive extrusion technology. During this reaction, a tridimensional net is formed (crosslink), which cannot be processed or dissolved without ensuing the polymer's degradation. Therefore, the compounds are not deformed by heat, and can withstand operating temperatures of over 90°C.

The main advantage of cables with thermoset isolation is that they can conduct a larger current when compared to a cable of the same cross-section that has thermoplastic isolation. Due to its reactive extrusion base, the compound presents exceptional finishing and processability.

APPLICATION

- Insulation and covering of wires and cables with copper or aluminum conductors.

FEATURES

- Highly resistant to thermal oxidation.
- Stable under UV light.
- Resistant to tracking.
- Distinct finishing.
- Neutralizes metallic ions.

POLYPLAST

• PE

The Polyplast product line is comprised of polyethylene with a package of antioxidants, additives and carbon black, which results in superior durability and more resistance to thermal degradation and weathering. Its suited for external installations, which may suffer from exposure to weather change and temperature variance.

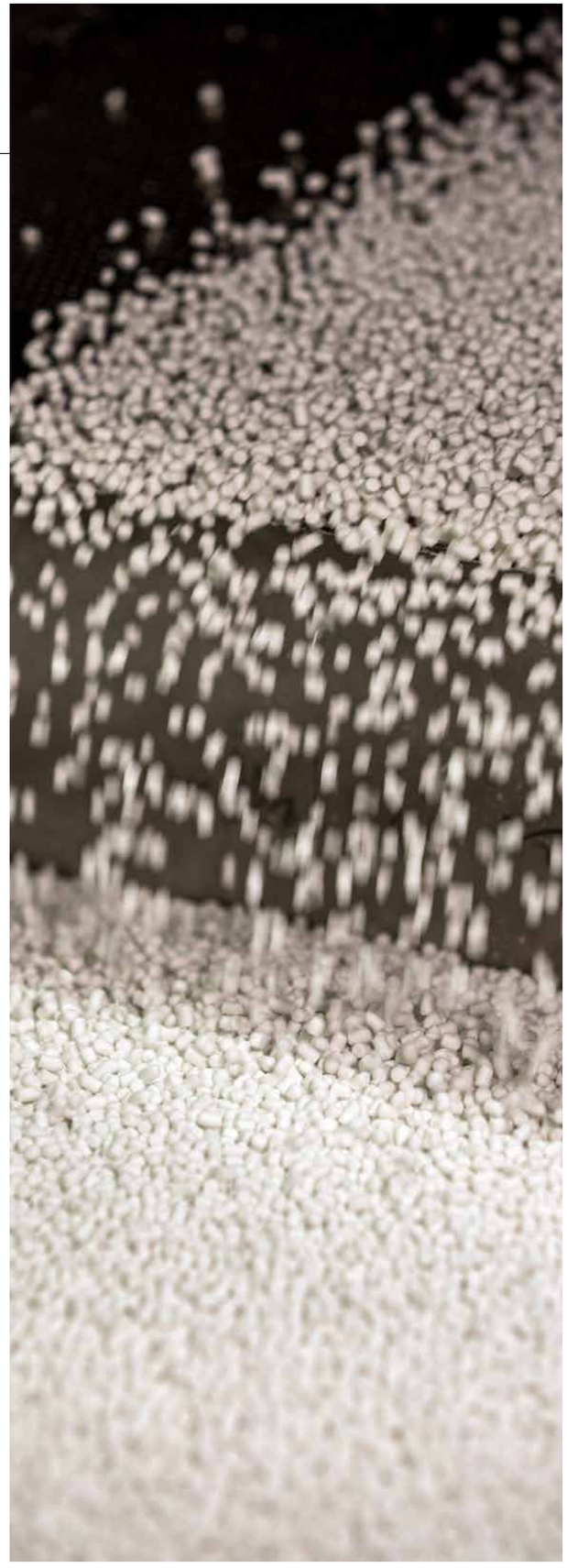
This compound presents excellent process stability, which results in a smooth and uniform finishing.

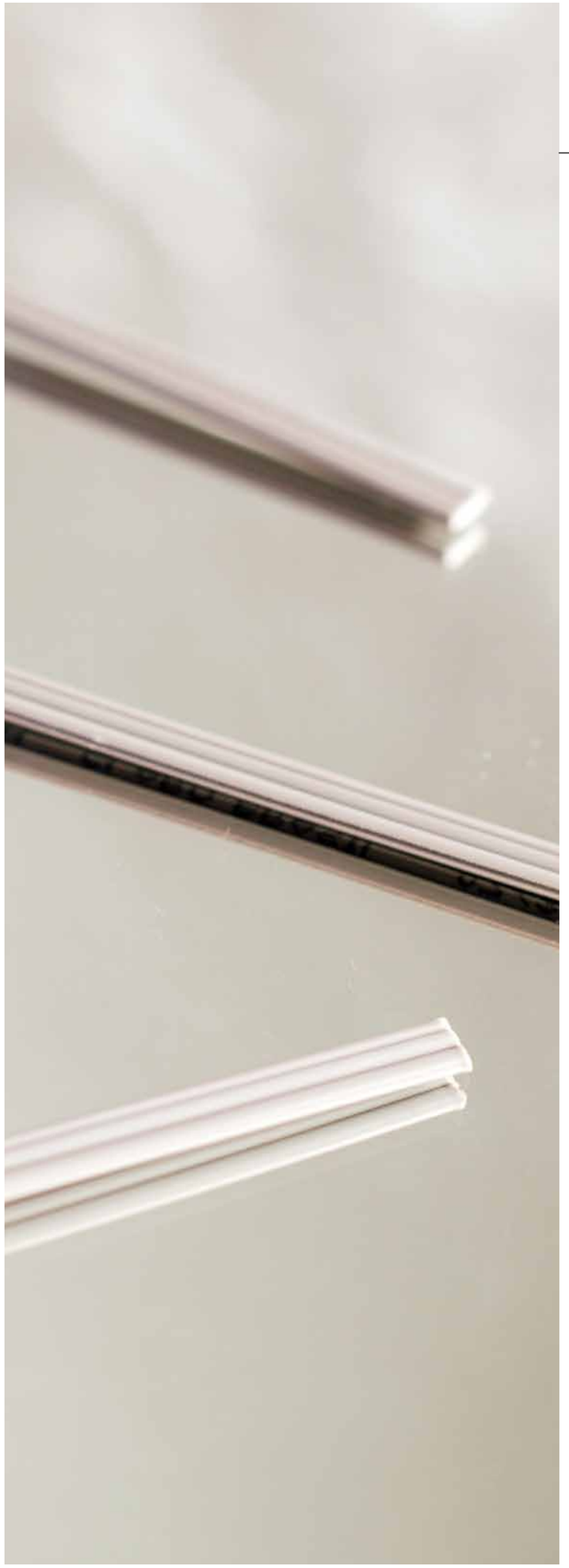
APPLICATION

- Insulation and covering of wires and cables with copper or aluminum conductors.

FEATURES

- Excellent superficial finishing and processability.





POLYTOX

• HFFR • LSZH • LZOH • SHF-1 • ATOX
• LSHF • LSOH • LSFH • OHLS • ZHFR

Polytox is known as a HFFR (Halogen Free Fire Retardant), a thermoplastic compound used as coating in the wire and cable industry.

The Polytox coating emits a low amount of smoke and no halogen at all (which is a toxic gas) when exposed to powerful sources of heat.

APPLICATION

- Insulation and covering of energy and telecommunications cables.

FEATURES

- Highly resistant to traction and stretches during breakage.
- Excellent thermal resistance.
- The line has products with additive packages for low friction.

POLYCOLOR

• XLPE • XLPE AT • HEPR • PE • HFFR

The Polycolor masterbatch line possesses a PEBD base and is designed for use in HFFR, XLPE, HEPR and XLPE anti-tracking compounds and also in compounds with a PEBDL/PEAD base.

Suggested proportion varies from 1% to 7% to achieve black carbon levels, depending on the desired cover or on the normative standards that must be met.

APPLICATION

- Dyeing compounds used for insulation and covering of energy and telecommunications cables.

FEATURES

- High levels of resistance under light.

POLYCOND

The products of the Polycond line are semi-conductive compounds, either thermoset of thermoplastic, used for applying conductor screen (copper or aluminum).

The connection of the molecules results in a homogenization of the electrical field that eliminates empty spaces between the conductor and the insulation, offering the final product a perfectly cylindrical shape.

APPLICATION

- Screening of the conductor.

FEATURES

- Additives to enhance resistance to thermal oxidation.
- Contains metallic ion neutralizers.
- Additives to allow for high production speed.

POLYSOLUTIONS

In order to deliver to our clients a thorough solution, Polyexcel presents the Polysolutions product line: water blocks; stay and traction elements; chemical solutions; and tapes and wires specially prepared and developed for specific uses.

Water blocks

• The non-conductive and semi-conductive water block tapes are used to protect conductors (aluminum/copper) or optical fiber against humidity. They are available in many different weights, widths and lengths.

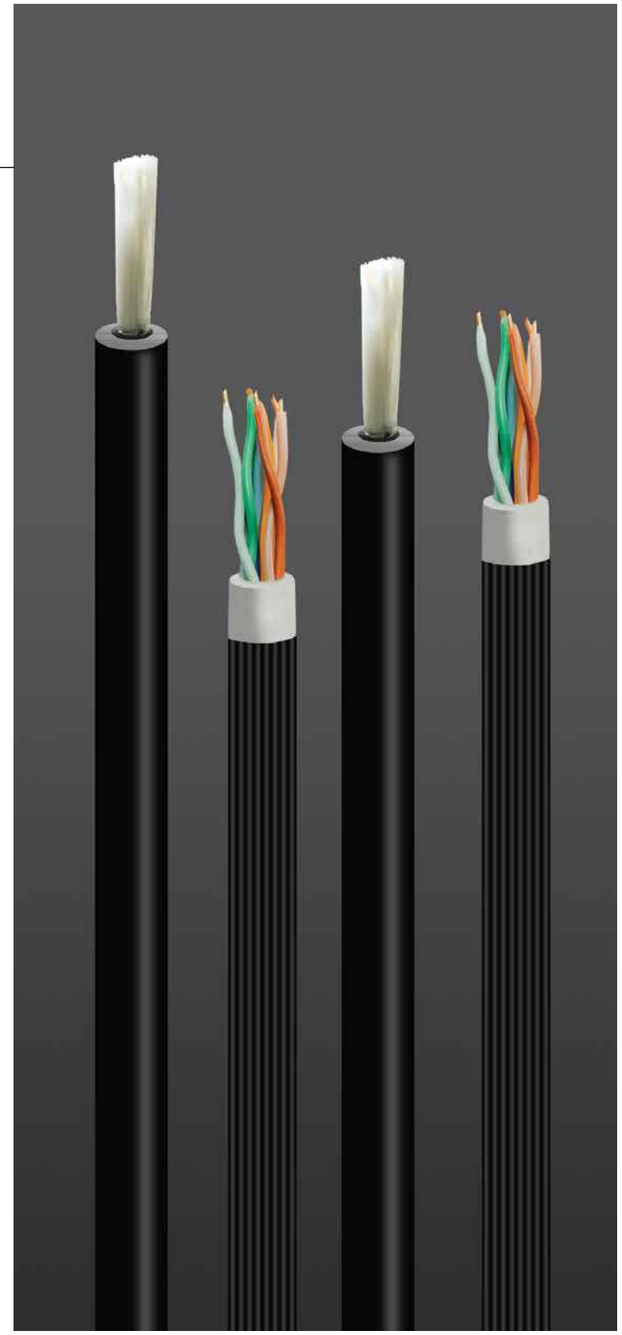
• Water-blocking polyester threads are used to protect conductors (aluminum/copper) or optical fiber against humidity. They are available in many different weights, widths and lengths.

• The water-blocking gel is used to protect optical fiber from humidity.

Stay and traction elements

• The Fiber Reinforced Plastic Rods (FRP) and the Aramid Reinforced Plastic rods (ARP) are totally dielectric. They are available in different diameters and also with coatings that add properties suitable for different technical needs, according to use.

• Fiberglass threads coated with PU can receive an additional water blocking cover. Depending on the amount of PU that is applied, the product will present more flexibility or rigidity. Usually, this solution is used to protect underground cables against the attacks of rodents, but it can also be applied to aerial cables.



• Aramid threads are 5 times more resistant than steel and can receive a water block coating. They are commonly used on cables that face severe mechanical stress.

Compound

• PBT (polybutylene terephthalate) is water repellent and highly resistant, protecting the nucleus of optical cables from water and also from severe mechanical stress.

Polyexcel

ENERGY IN COMPOUNDS

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