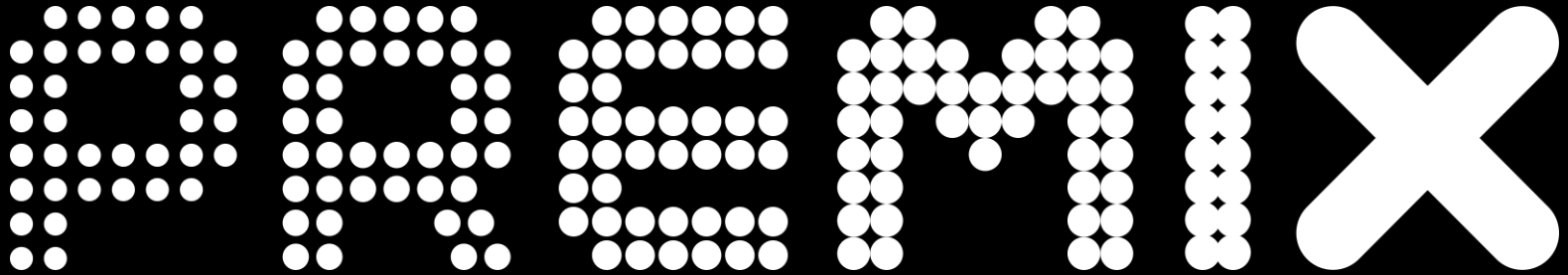
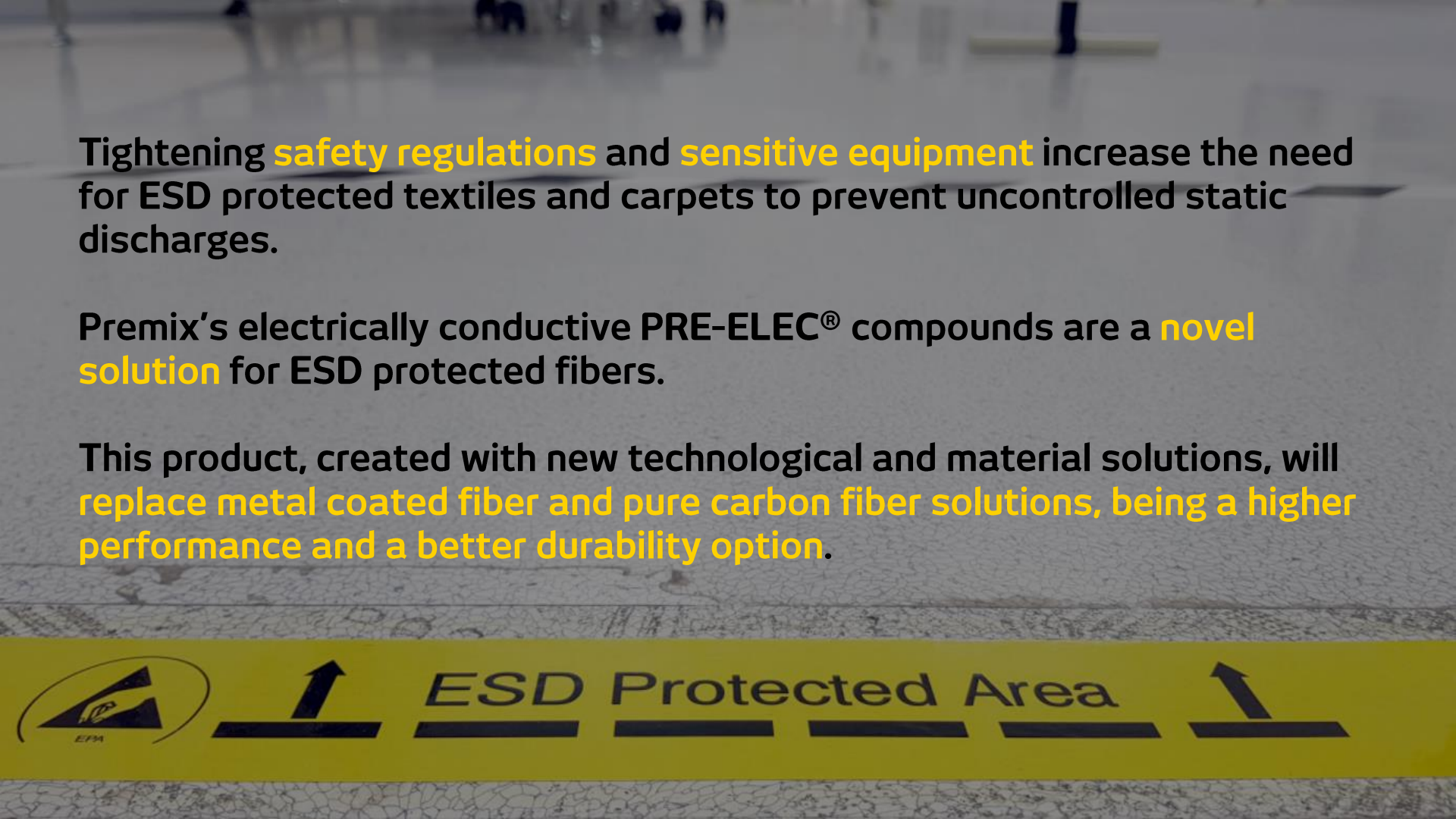


Conductive PRE-ELEC® Compounds in Fibers

Creating a safe society with functional materials



Tightening safety regulations and sensitive equipment increase the need for ESD protected textiles and carpets to prevent uncontrolled static discharges.

Premix's electrically conductive PRE-ELEC® compounds are a novel solution for ESD protected fibers.

This product, created with new technological and material solutions, will replace metal coated fiber and pure carbon fiber solutions, being a higher performance and a better durability option.

Replacing metal coating and carbon fiber with plastic

Traditional ESD fiber solutions are created by coating yarn with metal or spinning carbon fiber with normal fiber. The PRE-ELEC® compounds can be melt-spun into the fibers.

Durability: Metal coating can wear off and carbon fiber can break. As the PRE-ELEC® compounds are part of the fiber, they wear off only as fast as the fiber wears off. This increases the lifespan of the end-product.

Built-in conductivity: Being part of the fiber, PRE-ELEC® compounds also ensure all parts of the end-product has equal conductivity.

Easy to process: Melt spinning is a simpler production process than adding metal or carbon fiber to the yarn.

Novel solutions for ESD protective fibers

The PRE-ELEC® compounds have **excellent dispersion**. This means they enable equal conductivity to the end-product when used in equal quantities.

Our excellent raw materials (carbon black and base plastics) ensure there are **no impurities** in the PRE-ELEC® compounds. This is very important for the sensitive melt spinning process.

High dispersion and pureness of the PRE-ELEC® compounds also makes it easier to use it in **very thin fibers** (down to 7 µm in diameter).

PRE-ELEC® compounds
Grade selection for fibers

Conductive compound portfolio
Fibers

Experimental grade

Product	Base polymer	Typical properties	Special features
PRE-ELEC® PA 18672	PA	Good spinnability combined with stable conductivity level	High purity Extra fine dispersion Suitable for bicomponent lines only

PA compound

PRE-ELEC® PA 18672

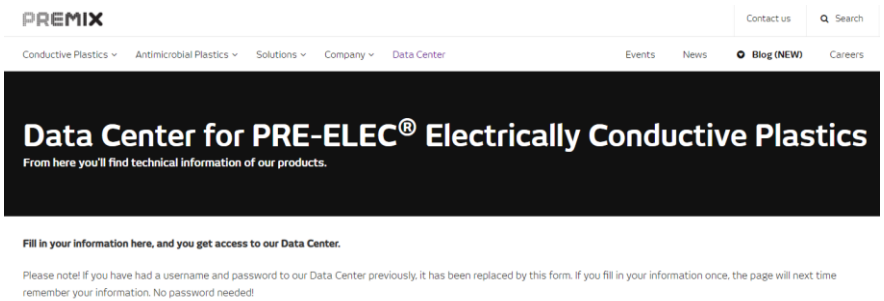
PRE-ELEC® PA 18672 in extruded tape, 600 µm	Typical properties
Volume resistivity	2 Ωcm
Hardness, Shore D	88
MFI, 250°C/10kg	40
Tensile strength	64 MPa

- High purity
- Extra high dispersion
- Good spinnability

Premix Data Center
Technical datasheets

In our Data Center, we have collected **technical information** about our products for you, including **processing instructions** for PRE-ELEC® conductive compounds and concentrates.

https://premixgroup.com/data-center



Premix Oy
High expertise in product development
& technical support

Premix Oy – Your reliable material supplier

European market leader and global forerunner in **Electrically Conductive Plastics**.
Strong focus on developing future material solutions.

The newly invested state of the art machinery makes Premix **one of the strongest producer of conductive compounds.**

Long-term expertise in polymer compounding; product development and material processing know-how in fiber applications.

Technical support available for trial runs.

Wide distributor network, local representative in various countries.

Responsible Care
Our commitment to sustainability

QUALITY SYSTEM CERTIFICATION
DNV·GL
ISO 9001:2015

PREMIX

Family owned, independent company

Established 1980

110 employees

Sales revenue 46 M€ (2020)

Production capacity 70 kt/a

LET'S MAKE
A GOOD MIX

www.premixgroup.com