



## ELECTRICALLY CONDUCTIVE PRE-ELEC<sup>®</sup> CONCENTRATES



Unlike plastics in general, conductive plastics have the ability to conduct electricity. When grounded, conductive plastics remain at zero potential and do not accumulate static electricity. Premix's conductive PRE-ELEC<sup>®</sup> compounds offer a wide variety of solutions with applications ranging from precise pipette tips and sophisticated smart textile components to bigger articles, such as FIBC used in the transportation and storage of hazardous goods.

[www.premixgroup.com](http://www.premixgroup.com)

# CONDUCTIVE PRE-ELEC® CONCENTRATES

**Concentrates are an excellent way to reduce overall logistics as a greater amount of functionality can be packed into the same size package.** In PRE-ELEC® concentrates, the carbon black content has been optimized to the highest possible level without impairing processability. To ensure maximum cost efficiency, recycled plastics or regrind from customers own processes can be used for dilution. One small, yet innovative step, can lead to significant cost savings.

## PRE-ELEC® carbon black concentrates are

- ecological
- economical
- customizable

Premix's portfolio offers conductive concentrates for high volume applications, especially for films, sheets and filaments. We have excellent materials for, for example, FIBC (type C) applications, pallets, pipes, drums, trays, cans, and other generic shapes.



# THE ADVANTAGES — WHY CONCENTRATES?

## ONE PRODUCT, MULTIPLE SOLUTIONS

Typically, a compound is designed for a specific application. If there's a need to use the compound for another application, the required level of performance might not be achieved. On the other hand, when using concentrates, it is possible to choose the dilution degree and dilution polymer, which makes it possible to tweak the properties to match the target application's needs.

## SMALLER FREIGHT COSTS

Customers can use their local raw materials and their own production off-streams together with our concentrates. This minimizes the freight costs and creates an obvious utilization route for material recycling as concentrates are designed for dilution. Compounds are often not designed for any kind of dilution.

## SIMPLER PROCESS

Sourcing for a large number of product variants is complex and costly. Using concentrates makes the process simpler and more manageable. Finding a suitable conductive compound is always trickier than basic raw material sourcing. Conductivity and other properties can easily be tweaked with slight changes to dilution.

## SOLUTION PRIVACY

Using concentrates also helps protect the IPR of the solutions ("solution privacy"). It is much simpler to reverse-engineer products if the raw materials are recognized. When a final article is produced via concentrate and a company-specific dilution formulation, the solution is much better protected against competition and spying.

## OTHER OPPORTUNITIES

Conductive concentrates can be used in combination with flame retardant and other additive masterbatches. It is up to the downstream user to choose the rest of the dilution. For example, GF-PP + UV-MB + Conductive concentrate can be used together in combination.

## **PRE-ELEC® Grade Selection for concentrates solutions:**

[www.premixgroup.com/data-center](http://www.premixgroup.com/data-center)

If you are looking for an electrically conductive plastic compound or concentrate with special features, do not hesitate to contact us at Premix.

## **ABOUT PREMIX**

With more than 40 years of industry experience, Premix's expertise lies in the formulation and production of functional plastic materials. Premix's materials are more than just traditional plastics – they play an active role in the product or process they are integrated into. Premix was one of the first companies to enter the market for electrically conductive plastics in the early stages, and it is now the world's leading specialist in the area. Today, we are a company that develops future solutions also for antimicrobial materials.

PRE-ELEC® is a registered trademark of Premix Oy.

## **LINKS**

**Premix Data Center** for datasheets and more: [www.premixgroup.com/data-center](http://www.premixgroup.com/data-center)

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