

## EXCELSERSE™ FX 9000

Wetting and dispersing agent for cathode electrode slurries

### GENERAL INFORMATION

**EXCELSERSE™ FX 9000** is a solvent-free wetting and dispersing agent, it is particularly effective in the dispersion of inorganic active substances in highly filled solvent-based and aqueous cathode electrode slurries for Lithium-ion batteries.

### CHEMICAL & PHYSICAL PROPERTIES

Composition	A copolymer with acidic groups
Appearance	Light yellow liquid
Non-volatile content	> 95 %
Acid value	ca. 135 mg KOH/g
Specific gravity	ca. 1.11
Electrochemical stability	0.1 V to 4.7 V (vs. Li/Li <sup>+</sup> )

These are typical properties not to be used for specification purposes.

### APPLICATIONS

- Phosphate-based cathode electrode slurries
- Energy storage

### KEY PROPERTIES

- Stabilize inorganic active materials in cathode electrode slurries
- Excellent viscosity reduction and storage stability for LFP slurry
- Improve flow properties of slurries & higher solid contents of slurries
- Improve production efficiency & energy consumption
- Lower internal resistance and improve charge rate without influence cycle life and other electrical chemical properties
- Solvent-free & ease of use

*continued...*

## EXCELSPERSE™ FX 9000

### INCORPORATION

It should be added to the active materials and solvent first and mixed well. The measurement of viscosity and particle size is useful to determine the optimum dispersion quality.

### LEVELS OF USE

Recommended usage level (as supplied on slurries):

Cathode electrode slurry: 0.2 – 2 %

A ladder study is recommended to obtain optimum results.

### COMPATIBILITY

**EXCELSPERSE™ FX 9000** is compatible with most cathode electrode slurries.

### HEALTH & SAFETY

Use proper personal protective equipment when handling.

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

### SHELF LIFE

**EXCELSPERSE™ FX 9000** has a shelf life of 2 years from date of manufacture.

### STORAGE RECOMMENDATIONS

Keep container tightly closed in a dry and well-ventilated area.

Store between 10 °C to 40 °C. Turbidity and separation may occur during storage. If this appears, mildly heat it to 30 °C or above until clear appearance and stir to homogeneous before use.

### QUALITY ASSURANCE

Quality system at the site manufacturing this product complies with and is certified to ISO 9001 quality standards.

### SUSTAINABILITY

**EXCELSPERSE™ FX 9000** is an organic solvent-free product.

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