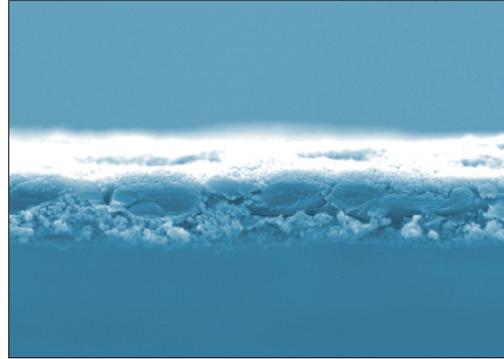




Maximized energy in minimized space



Cross-section of the new separator

More than 40 years experience in the separator business

Advancements in modern day battery technology necessitate the use of high-performance separators. The types and ratings of batteries in general are as many and varied as their applications - in toys, in drive technology, in communications, power tools and in numerous other fields as well.

Viledon separators for Ni-batteries

High homogeneity in structure and thickness, plus tight pore-radius distribution, assured by a wet-laid production process. These parameters are always selected on a customer-specific basis.

Reliable separation of the positiv and negative electrodes from each other and efficient filtering of solid mass particles. The labyrinthine structure of the separators serves as an effective barrier to dendrite growth.

Minimized resistance to the passage of ions - vital for high energy output.

High pore volume for fast, uniform storage of large electrolyte quantities.

Good thermal bonding and high tear resistance, achieved by using bi-component fibres. This is a crucial requirement for quick, efficient assembly of the cells concerned.

Customized finishing

To provide the characteristics desired, like hydrophilic or hydrophobic properties.

New separator for Lithium-Ion batteries

New applications of Lithium-Ion batteries like automotive and energy storage require new features of the battery cells and of the separators. Safety requirements of these cells are a major challenge, where the separator plays an important role. The new separator consists of inorganic particles, in a matrix of an ultra-thin PET nonwoven.

Important key safety features

No melt down

The separator remains stable at higher temperatures in the cell.

Ultra low shrinkage

The separator does not shrink, i.e.: keeps its barrier against short circuits.

High penetration strength

The separator does not allow dendrites to go through.

Improved processability in manufacturing

An improved electrolyte **wettability** allows for higher impregnation speeds.

The separator is stable at **150° C**, i.e. **no shrinkage**, this allows to dry the electrodes together with the separator without problems.

The separator can be used in **different cell constructions**, like round cell and prismatic cell.

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