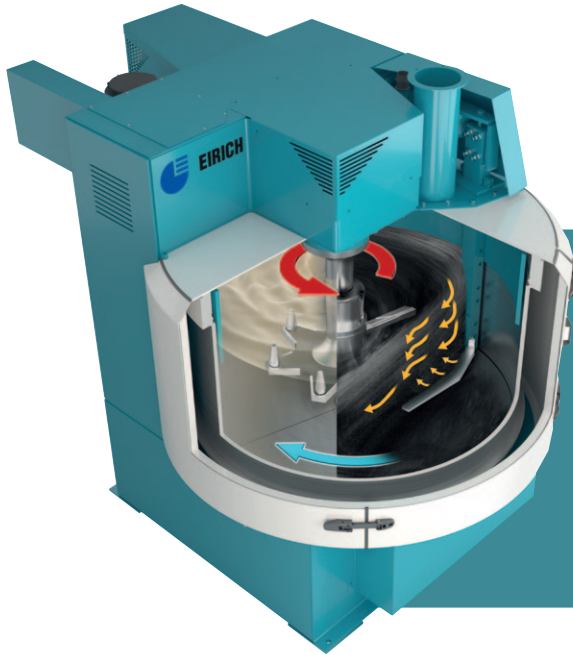




EIRICH

Preparation Technology for Lithium-Ion Batteries

**Preparation of dry mixes, granules and degassed slurry in one single unit.
Innovative preparation technology for battery manufacturers and producers of raw materials.**



- Several process steps in one machine
- Under atmospheric pressure or vacuum
- Explosion protection according to ATEX directives
- Optional vacuum reflux cooling
- Fully automatic process technology

The unique preparation principle

A rotating mixing pan for transporting the product
Variable-speed mixing tool, slow to fast,
for mixing, kneading, dissolving, dispersing, granulating

The effect

By separating the product transport from the mixing process it is possible to vary the speed of the mixing tool (and thus the power input) within wide limits.

The preparation principle of using one machine allows:

- The input of mixing energy into the mix and the applied shear forces can be controlled efficiently.
- Complete disintegration of agglomerates
- Homogeneous distribution of binder
- Optimal wetting of active materials, conductive carbon black and additives
- Processing / adjusting to any viscosity
- Very short processing times
- High quality assurance and reproducibility due to continuous process monitoring
- Temperature, pressure and power input can be visualized and documented.

Other advantages:

- No detrimental dead zones and temperature gradients in the mixer
- Easy access and cleaning of the mixer, can be automated on request
- Small footprint
- Low energy consumption
- Excellent scale-up potential
- High flexibility

EIRICH customers and research institutes report benefits compared to other preparation technologies:

- Substantially shorter processing times
- No product cooling required
- Improved powder conductivity due to very good dry mixing
- Powdery binder is added directly, without preparing a separate solution
- Excellent adhesive properties of the coating on conductor foils
- Homogeneous coating surfaces
- Improved electrochemical properties of the cells
- Minimal deviations from standard

Bear in mind:

The appropriate mixing system is at least as important as your formula.

Top-name manufacturers around the world work with EIRICH mixing technology.

We would be glad to provide references on request.

EIRICH is a research partner for universities.

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