

# **Granulating in the EIRICH-mixing granulator**

## Build-up agglomeration in the ceramic industry

- refractory materials: press bodies for isostatic pressing
- wall and floor tiles
- molecular sieves

#### varistors

- dental ceramics
- cutting ceramics
- abrasives, hard metals
- oxide and non-oxide ceramics
- grinding balls
- ferrites

#### Other applications

- pelletizing of oresproppants
- filter media,
- catalyst carriers
- fertilizers
- animal feed

- glass batches, foamed glass
- coloring pigments
- welding flux
- dusts, cyclone dusts
- building materials,
  - e.g.gypsum
- sand of expanded clay

#### The unique working principle

#### Rotating mixing pan

for material transport, rolling of granules

#### Variable-speed mixing tool, slow to fast for mixing, granulating,

increase of rolling energy

#### Separation between material transport and the mixing process This allows the speed of the mixing tool (and thus the power input into the mix)

to be varied within wide limits.

#### This working principle offers the following options:

- The mixing tool can be run variably, slow to fast
- The input of power into the mix can thus be controlled specifically
- High tool speeds allow
  - dry basic materials to be homogenized optimally
  - microgranules to be formed after addition of liquids
- Low tool speeds allow bigger granules to be formed and rounded, granules up to 6 mm possible
- Special tools enable high yields of fine granules to be obtained (e. g. 0.2 to 0.8 mm)

#### Further advantages:

- The EIRICH-mixing granulator was developed from the disk pelletizer, high-quality granules are formed
- Mixing and granulating in one and the same machine
- Short processing times, low space requirement
- Discontinuous operation possible

- Already the first batch produces correctly sized grain
- Filter cakes and sludges can be granulated together with dusts
- Combination with disk pelletizer possible:
  - grain spectrum adjustable within narrow limits
  - pellets with a diameter of up to 30 mm producible
- The mixer can be heated
- Mix temperatures of up to 250 °C are possible
- Available size from 1 L

#### EIRICH customers tell from experience:

- Significant cost savings compared to thermal granulation and fluid-bed agglomeration
- Less wear compared to press agglomeration

#### Top-name manufacturers around the world work with EIRICH mixing technology. We would be glad to provide references on request. EIRICH is a reserach partner for universities. Put us to the test. We would be glad to tell you more.

### **MIXING TECHNOLOGY**

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