

FLUIDIZING with PE-porös from KIK

Many dry bulk materials can be put into a fluid-like state by "fluidization", in other words, passing air through them. This motile state can be used for

- homogenizing or mixing
- discharging or flow-conveying
- drying or cooling
- fluidized-bed sintering

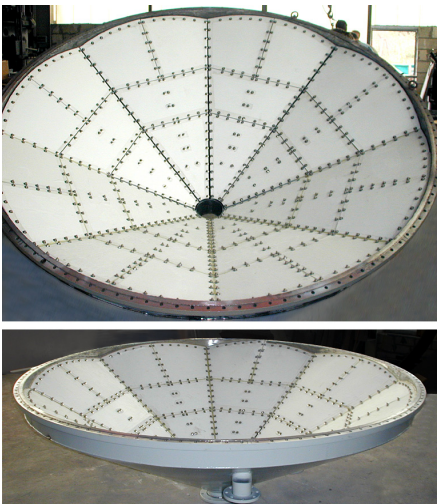
of powdered materials.



Aeration trays and hoppers



Aeration strips



PE-porös segments in large diameter silos

KIK offers for these tasks **aeration systems** in the form of **plates, aeration trays** and **hoppers** made to measure, and **aeration strips**.

PE-porös has a low coefficient of sliding friction, and the products made from it have smooth surfaces, so that it has less sliding friction to start with than steel sheeting or woven fabrics, for example. The aeration reduces this still further, and loosens up the bulk material in addition.

Pneumatic discharge hoppers by KIK are aids for discharging fluidizable dry bulk materials that are not free-flowing.

Aeration that is gentle to the product prevents

- bridging
- pit formation
- core flow

For higher mechanical stresses, materials with perforated plates sintered into them are employed. Steel flanges and spouts are then welded to these plates.

If full-surface aeration is not necessary, **aeration strips** can be employed. The standard sizes of aeration strip offered by KIK are 125 mm wide, in lengths of 250 mm, 500 mm, and 1,000 mm.

For use at higher temperatures, strips from sintered high-grade steel are available as well as PE-porös, in the same sizes.

Aeration trays with gradients ranging from 15 to 30 degrees permit rapid mixing that is gentle to the product even of large batches.

Even large silos with diameters up to 12 metres can be fitted with segments manufactured from plates.

Fluidized-bed homogenization is an energy-saving process for fluidizable dry bulk materials which features particularly gentle circulation of the material.

The **recognized physiological safety** permits the use of products made of PE-porös also in the food and pharma industry.