

## HIGH-PERFORMANCE CERAMICS

### **BUBBLE TUBES FOR THE GLAS INDUSTRY**

**Application:**

Used in glass melting tanks of efficient process design

**Material:**

Aluminium Oxide ( $\text{Al}_2\text{O}_3$ ) **DEGUSSIT AL23**

**DEGUSSIT AL23** has proved its worth time and again in the glass industry. Bubble tubes, used in glass melting tanks for the purpose of efficient process design, are just one example of the demanding applications of these high-performance ceramics.

Bubbling initiates the formation of a so-called convection current ensuing from the gas bubbles rising from the bottom of the melting tank. This ensures that "cold glass" from the bottom of the melting tank is again transported to the surface. Refinement and homogenisation of the glass melt is thus accelerated, resulting in higher melting efficiency. The creation of air bubbles and/or a complete air-bubble curtain at the end of the tank melting zone is carried out by means of a row of bubble tubes inserted from the base of the tank by means of borings in the hearth blocks, transverse to the tank axis.

As the borings are small in diameter, any infiltration and cooling of the glass melt in the ceramic tube is excluded. The system is designed in such a way that, in case of wear on the tube tips, the bubble tubes can be inserted further into the hearth block.



- ▶ High temperature resistance
- ▶ Corrosion resistande
- ▶ High dielectric strength
- ▶ Good thermal conductivity
- ▶ Good thermal shock resistance

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**Competence in Advanced Ceramics**  
Engineering for customized solutions

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