

# NEW STATE-OF-THE-ART FACILITY, TRUSTED BRAND CLEAR EDGE

Cerafil production in Longyan, China, employs the highest standards and enhanced testing-methods for ceramic filter candles





# **REACHING A HIGHER** LEVEL OF EFFICIENCY

Filtration Group Industrial extends the production of ceramic filter candles. The new facility in China serves the expanding markets in Asia and the rising demand for valid emission control in plants worldwide. It combines our technological knowledge and 30 years of experience with a state-ofthe-art production design. The goal is to provide the cleanest solutions for hot gas filtration ever.

WE CARE FOR FUTURE GENERATIONS.

# A MORE EFFICIENT PRODUCTION ON EVERY SCALE

### THE PLACE

- design perfectly adapted to the purpose
- clean-sheet approach allowed planning with foresight and goal-setting
- linear process workflow that enhances quality and productivity
- capacity for future expansions



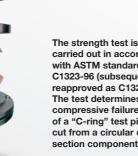
# THE WORKFORCE

- team of around 15 graduate engineers and scientists backed by our experienced European team
- carefully supervised transfer of technology and knowledge
- Technical Director for Cerafil products is new CTO of Chinese production facility



### **THE QUALITY CONTROL**

- continuity of supplier chain guarantees equal quality for key raw materials as used and approved for the European production
- quality control checks covering each stage of the production process and finished goods
- comprehensive sequence of analytical techniques, including pressure drop, strength, catalyst loading, deNOx performance, dimensional tolerances



carried out in accordance with ASTM standard C1323-96 (subsequently reapproved as C1323-16). The test determines compressive failure stress of a "C-ring" test piece cut from a circular cross section component



Chinese facility offers ultra-modern standards of analysis techniques ensuring an advanced quality control.

### **MICRO-ACTIVITY REACTOR** (MAR)

The MAR is employed to measure the catalytic activity of a small filter sample in order to determine the deNO<sub>x</sub> performance of the catalytic ceramic filter.

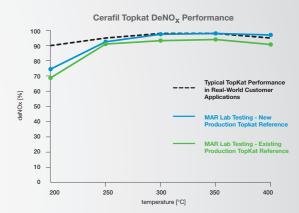
#### SCANNING ELECTRON **MICROSCOPY (SEM/EDX)**

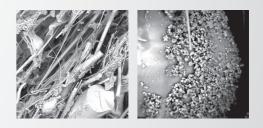
#### with Energy-Dispersive X-ray Spectroscopy

The cross-section of the filter (wall) is examined using a high resolution electron microscope equipped with chemical analysis capability.

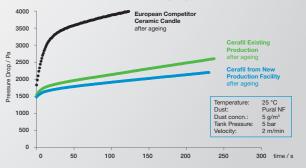
### **FILTRATION PERFORMANCE TEST (VDI3926/ISO11057)**

The testing method provides information about the long term operational performance, pressure drop and reverse pulse cleaning behaviour of the filter and the particle emissions.





Pressure Drop Development - Test Phase after 10000 Cycle Ageing Phase



#### REFERENCES

# LEADING SOLUTIONS

## Reduced costs and pollution in biomass utilization

The Guoneng Zhengyang bio Power Generation Corporation develops and utilizes biomass energy with two parallel systems: a biomass direct fired boiler operated with high temperature and high pressure, and a steam turbine generation unit. Cerafil ceramic catalytic filters efficiently segregate dust particles



and  $NO_x$  in flue gas (< 10 mg/Nm<sup>3</sup> and < 50 mg/Nm<sup>3</sup>) to meet the emission thresholds. Being the first biomass power company to integrate Cerafil filter elements, the Guoneng company managed to achieve two goals: to reduce environmental pollution and operating costs.

Biomass power utilization and Cerafil filters – a future-proof cooperation as shown in the Guoneng Zhengyang bio Power Generation Corporation.



Cerafil filters help to meet environmental protection requirements in silica production, like in the Anhui Quecheng Silicon Chemical Corporation.

# Enhancing the pollution control in organosilicone production

The Anhui Quecheng Silicon Chemical Corporation is the first company in Asia to produce silica on a professional range. To achieve the emission thresholds and therefor meet the requirements for pollution control, ceramic catalytic filters from Cerafil treat flue gas from the sodium silicate melting furnace. Reducing the concentration of dust to < 10 mg/Nm<sup>3</sup> and of NO<sub>x</sub> to < 50 mg/Nm<sup>3</sup> also shortens the process significantly and thus reduces the cost of investment by far.

#### WORLDWIDE AT OVER 100 LOCATIONS IN 28 COUNTRIES



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