



# GORE® Filtration Products

Cement Industry

## Case History 11

## Cement Kiln

### OPTIMIZATION POTENTIAL

Cement plant in China using non-membrane Nomex® filter bags was experiencing high pressure drop and short bag life. Poor performance was resulting in high energy consumption and costly maintenance.

### SOLUTION

The plant replaced the non-membrane Nomex® filter bags with GORE® High Durability Filter Bags and fully optimized all system settings.

### RESULTS

Installation of GORE® High Durability Filter Bag in September of 2009 resulted in the following improvements to the baghouse and overall production process:

- Differential pressure was dropped from over 3,000 Pa to less than 2,000 Pa
- Filter bag life extended from less than 12 months to more than 48 months
- Emissions remained low
- Lower maintenance costs



<b>Process Description:</b>	Raw Mill/Cement Kiln Exhaust
<b>Collector Manufacturer:</b>	Chendu Design and Research Institute of Building Materials Industry Co., Ltd
<b>Design Airflow Rate:</b>	480,000 am <sup>3</sup> /h (282,300 acfm)
<b>Design Temperature:</b>	200°C (392°F)
<b>No. Bags/Collector:</b>	2,860
<b>Cleaning System:</b>	Low Pressure/High Volume, 0.25 – 0.4 MPa (36 – 58 psi)
<b>Air-to-Cloth Ratio:</b>	Gross 1.14m/min (3.74:1)
<b>Bag Material:</b>	GORE® High Durability Filter Bag (Fiberglass Fabric coated with Polytetrafluoroethylene, 746 g/m <sup>2</sup> , 22 oz/yd <sup>2</sup> )

**FOR INDUSTRIAL USE ONLY.** Not for use in food, drug, cosmetic or medical device manufacturing, processing, or packaging operations.

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