



GORE® Filtration Products

Metals Industry

Case History 14

Secondary Lead Metal Production

OPTIMIZATION POTENTIAL

Old shaker-style baghouses utilized a conventional woven acrylic filter media. The old bags tended to blind early and bleed through created stack emission problems. While the application was not as chemically aggressive as some secondary lead furnace systems, moisture and some mild acids were present.

Damaged bags and particulate bleed through contributed to unacceptable stack emissions. Lack of adequate draft at the blast furnace also created uncomfortable and dirty working conditions within the facility.

SOLUTION

Replaced the existing conventional acrylic bags with GORE® membrane filter bags with a homopolymer acrylic woven fabric backing material and optimized system settings.

The ePTFE membrane surface of these filters is chemically inert and extremely efficient, capturing even sub-micron particulate at or very near to the filter surface, from where it is then very easily released, which in turn provides for low operating pressure drops.

RESULT

GORE® membrane filter bags improved bag life to three to four years, while baghouse down-time, maintenance costs, and stack emissions have all been drastically reduced. Baghouse emission rates are lower than the required regulatory limits and draft at the blast furnace is adequate for the operation. The hygiene conditions inside the plant have improved as a result.



Application:	Blast Furnace
Baghouse:	Shaker Cleaning 119.022 Am ³ /h (70,000 acfm)
Number of bags:	2,880
Filter area:	4,847 m ² (52,150 ft ²)
Temperature:	127°C (260°F) maximum
Filter material:	GORE® ePTFE membrane filter bag with 255 g/m ² (7.5 oz/yd ²) homopolymer acrylic woven fabric backing.

© 2007 W. L. Gore & Associates
© GORE® and designs are trademarks of W. L. Gore & Associates

W.L. Gore & Associates, Inc.
101 Lewisville Road
ELKton, MD 21921

www.gore.com/filtration

Worldwide Sales and Support Contact Information

Australia +61 2 94 73 68 00	Italy +39 04 56 20 92 42	Singapore +65 62 75 46 73
Benelux +31 7 36 87 24 44	Japan +81 3 33 27 00 11	Spain +34 9 34 80 69 00
China +86 21 64 85 49 90	Korea +82 23 93 34 11	South Africa +27 1 18 94 22 48
France +33 1 56 95 65 65	Malaysia +60 60 37 32 37 75	South America +55 11 51 82 66 99
Germany +49 89 46 12 22 42	North America +1 800 638 5300	Taiwan +88 62 87 71 77 99
India +91 22 6 83 71 87	Scandinavia +46 3 17 06 78 00	United Kingdom +44 15 06 46 01 23

