



# Gore™ Filtration Products

Chemicals Industry

## Case history 8

# Carbon Black

### OPTIMIZATION POTENTIAL

The majority of carbon black produced today is made using the oil furnace process, based on the incomplete combustion of oils. The combustion process occurs in refractory lined vessels. Carbon black is produced, sized and conveyed in a powdered form. Dust collectors (baghouses) are used to efficiently collect the carbon black particulate and to control fugitive emissions. The manufacturer faced the need to increase airflow through the reactor (to increase production) and wanted to extend the service life of the filter bags in order to save costs.

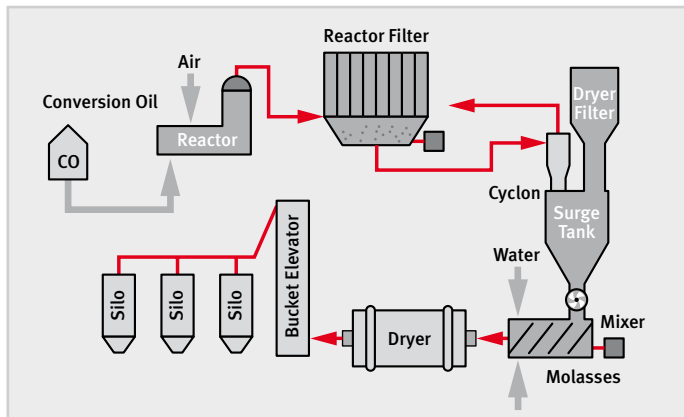


Photo: Pirelli Deutschland GmbH

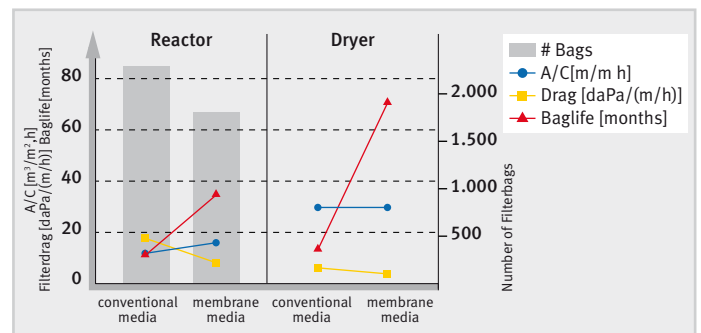
- Application:** Carbon Black (Main Filter)
- Temperature:** 220°C – 260°C
- Number of lines:** 1
- Flow rate:** 40.000 m<sup>3</sup>/hr
- Pressure drop:** 120 daPa
- Filter area:** 2.600 m<sup>2</sup>
- Baglife:** 3+ years
- Filter material:** GORE™ Acid resistant Fiberglass Fabric

### SOLUTION

Instead of conventional filter bags GORE™ membrane/Acid Resistant Fiberglass Fabric (9.8 oz) filter bags were used.

### RESULT

With the use of GORE™ filter bags the airflow was increased by over 20%, the pressure differential across the collector was reduced by over 50% (with higher airflow) and a baglife of 3 years could be achieved.



Filter Bag Performance

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