



Gore™ Filtration Products

Chemicals Industry

Case history 3

Titanium Dioxide

OPTIMIZATION POTENTIAL

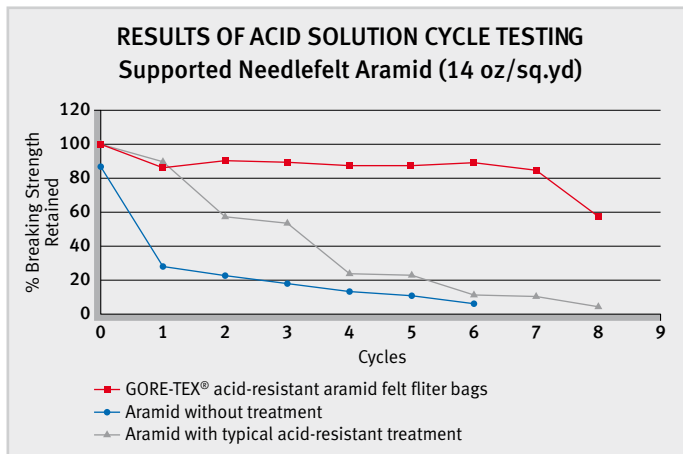
Titanium Oxide Hydrate is dried before it gets calcined and converted into TiO₂. This patented process helps to increase the capacity of the calciner. After drying the Oxide Hydrate still contained some sulphuric acid which caused corrosion on the process equipment and damage to the filter bags. Filter bags were only lasting 3–6 months. There was also no backup system so dryer and baghouse had to operate 24/7 all year round.

SOLUTION

Enhanced acid resistance GORE™ Aramid Filters were installed and we worked with the customer to optimize the whole system including reducing air flow, installing better temperature control, and providing regular bag analysis to predict remaining baglife.



- Application:** Titanium Oxide Hydrate (TiO(OH)₂) Dryer
- Process:** The Oxide Hydrate is dried before it gets calcined and converted into TiO₂.
- Plant capacity:** 100.000 tpy
- Production rate:** 2 tonnes per hour
- Flow rate:** 17.000 m³/h
- Temperature:** 140°C
- Filter material:** GORE™ Acid Resistant Aramid Felt



Improved Hydrolysis Resistance.

RESULT

By replacing generic membrane filters with GORE™ Acid Resistant Filters, and optimizing airflow, life was extended to 9–12 months with continuous system operation.

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