

GAR-SEAL®

Case Study: Chemical processing of titanium dioxide pigments



Industry

Chemical Processing

Customer

The customer is a leading global chemical company dedicated to the development and manufacture of titanium dioxide (TiO₂) pigments and performance additives.

Background

This customer's facility in Germany processes pigments and additives for several industries, such as paint and coating formulations, clothes, cars, mobile devices, cosmetics and skin care products, plastics, inks and many more.

Challenges faced

Our customer wanted to replace PTFE lined valves in a sulfuric acid plant and in an ore plant for longer service life. The valves were used for pipelines and containers.

Operating Conditions for Application 1 (PTFE white for sulfuric acid plant)

1. Media: Highly concentrated sulfuric acid
2. Pressure: PN10/16
3. Working Pressure: 2 - 6 bar
4. Temperature: 20 - 140 °C

Operating Conditions for Application 2 (PTFE abrasive for mixture of titanium ore and sulfuric acid)

1. Media: Mixture titanium ore and sulfuric acid
2. Pressure: PN10/16
3. Working Pressure: 2 bar
4. Temperature: max. 200 °C

Solution and Benefits

The success story at the customer's facility began some time ago when the previously used PTFE lined valves in the sulfuric acid plant were replaced by GAR-SEAL® valves with PTFE white liner and discs. The reason for the change was the much longer service life of the GAR-SEAL® valves.

Due to the good experiences in the use of GAR-SEAL®, the customer agreed also to install GAR-SEAL® with PTFE abrasive liner in the ore plant with very abrasive media. Here, too, we were able to achieve successes in longer service life of the valves and the customer was satisfied with the result.

For more information, please visit:

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