



Gore™ Filtration Products

Chemicals Industry

Case history 12

Polyvinylfluoride

OPTIMIZATION POTENTIAL

The use of conventional Nomex filters caused an increase in pressure drop to over 2.500 Pa. This was due to fine particulate penetration into the conventional filter media. This required bags to be changed out every six months. In addition product rejection was high due to amount of "old particulate" adhering to filter material. Ultimately, the system had to be shut down due to excessive pressure drop.

SOLUTION



Conventional filter bags were removed and a new set of GORE™ Acid Resistant Aramid Felt filter bags were installed. System settings, including airflow and cleaning cycles were optimized by Gore technicians for the higher airflow provided by the new membrane filters.

RESULT

With installation of GORE™ Acid Resistant Aramid Felt filters pressure drop was stabilized at 1.000–1.500 Pa. Cleaning cycle optimization maintained this pressure through life of the filters. The dryer was able to run at full design specifications. Product rejection rates were greatly reduced thus increasing productivity over the life of the filter.

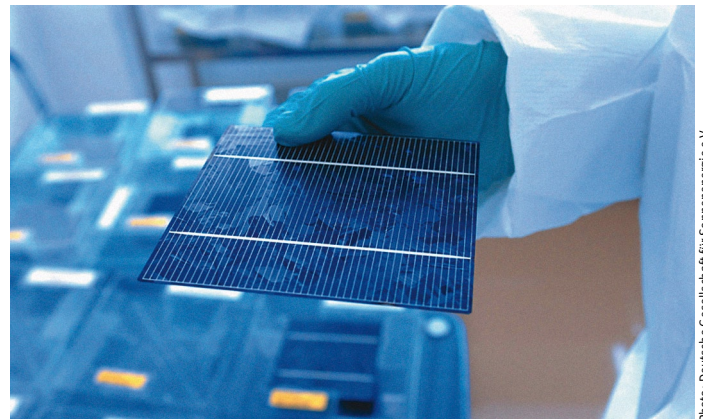


Photo: Deutsche Gesellschaft für Sonnenenergie e.V.

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| Application: | Polyvinylfluoride (PVF Dryer) |
| Process description: | Dryer |
| Plant capacity/production rate: | n/a |
| Gas flow rate: | 12.000 m ³ /h |
| Operating Temperature: | 125 °C |
| Total filter area: | 197 m ² |
| Emissions rate: | < 6 mg/m ³ |
| Differential pressure: | 1.000–1.500 Pa |
| Bag life: | 5+ years |
| Filter material: | GORE™ Acid resistant Aramid felt |

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