



Case study Neutralac® SLS45

Precipitation of aluminum and phosphates in effluents treated by membrane filtration

Customer Application and Activity

Decoral specializes in treating (anodizing, polishing, etc.) technical components made from aluminum and titanium.

The effluents from its surface treatment plant at the St-Julien-en-Genevois factory in France are mostly contaminated with aluminum and phosphates.

Problem to be solved

Decoral was keen to simplify the management of its products to the greatest degree possible and was delighted to be able to use a single product for treating its effluents. Its objectives were:

- to avoid preparing a calcium chloride (CaCl₂) solution
- to limit the use of caustic soda (NaOH) for safety reasons
- to keep membrane filtration performance unaltered

Neutralac® SLS45 Solution

After checking the technical viability at the customer's site, Lhoist favored the ease of implementation of Neutralac® SLS45, a ready-to-use liquid reagent. With a concentration of 600g of Ca(OH)₂ per liter and its high reactivity, Neutralac® SLS45 provided the necessary alkalinity and calcium required for an efficient pollutant removal without increasing the salinity of the effluents.

VIU results

The benefits for Decoral were:

- 5 fewer CaCl₂ preparations per week
- Water consumption reduced by 200 m³ per year
- Treatment costs reduced by 30%
- A positive effect on the color of water leaving the plant
- Better quality sludges

Conclusion

Lhoist met Decoral's expectations by:

- Supplying a solution suitable for the existing membrane process
- Delivering effective treatment at a lower cost
- Ease of use

This solution has been integrated into the plant's automated systems.

