

RECORDED BENEFITS

- Improved scale control
- Less downtime needed for cleaning
- Reduced costs related to refiner plate change
- Less variations in fiber quality
- Reduced phosphorus load in effluent

Improved Scale Control with a Phosphorus-free Technology

Zenix™ DZ4217 Scale Inhibitor

Customer Challenge

A North European LWC paper producer was using a scale control agent based on traditional phosphate technology for calcium sulfate scale control in CTMP refiners. With this treatment in place, the mill was still experiencing some scale deposits including calcium phosphate scale caused by the product itself when over-dosed.

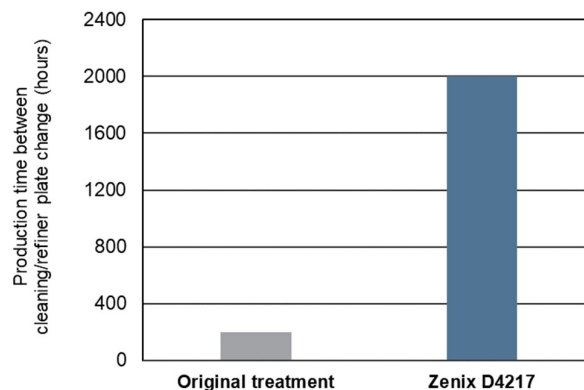
Due to the scale build-up, the customer had to open the refiners for cleaning and perform unscheduled shut-downs. On occasion, the plugged refiner plates had to be replaced. In addition, the used product was contributing to the phosphorus load in the effluent water.

Recommended Solution

After a mill audit and discussions with the customer, Solenis recommended replacing the existing scale control product with Zenix™ DZ4217 scale inhibitor. This is a highly effective phosphorus- and nitrogen-free product suitable for use in a wide range of conditions including high temperatures.

Results Achieved

After switching to Zenix DZ4217, the scale build-up in the CTMP refiners reduced significantly eliminating the need for unscheduled shut-downs for cleaning. The mill has been able to maintain their normal frequency for refiner plate change, which is 2000 hours. In addition, the phosphorus load in the effluent water has been reduced providing more flexibility in the effluent plant.



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