



ACID GAS AND SELENIUM REMOVAL: HIGH PERFORMING EMISSIONS REDUCTION WITH SORBACAL® SPS

THE CHALLENGE

A flat glass production plant was equipped with a flue gas treatment (FGT) unit composed of a furnace followed by an electrostatic precipitator (ESP). The gases were treated by injecting sodium bicarbonate alone or in combination with Sorbacal® SP, a hydrated lime with high specific surface area and porous volume. The use of two different sorbents, however, made supply management burdensome. Another issue was that special care was needed for storing and recycling the residue.

THE LHOIST SOLUTION

In close corporation with the customer, we suggested using Sorbacal® SPS as a solution. This sorbent, derived from Sorbacal® SP, was specifically developed to improve the removal of sulfur oxides and to replace the sodium bicarbonate/Sorbacal® SP combination. Sorbacal® SPS is also effective at removing selenium.

THE BENEFITS

Substituting Sorbacal® SPS for the sodium bicarbonate/Sorbacal® SP combination proved ideal. It answered the customer's need for a high-performing emissions reduction solution that would greatly simplify operations and supply management, while producing a homogeneous residue easily recycled into the glassmaking process.

> Acid gas removal

Measurements of acid gas concentrations upstream and downstream of the FGT unit showed that with Sorbacal® SPS, desulfurization and dechlorination performance was equivalent to that of sodium bicarbonate. Moreover, hydrogen fluoride removal was superior, even at lower flow rates.

> Selenium removal

Because the plant manufactures glass containing selenium, the FGT system also had to remove selenium oxides. With higher removal rates than sodium bicarbonate, Sorbacal® SPS proved to be an effective solution to meet the strictest emission limits. In addition, the FGT residue, rich in selenium, was perfectly reusable in the glassmaking process.

OUR EXPERTS CLOSE TO YOU

Find the best solution for your business by contacting one of our experts in your country or region via the contact page on www.sorbacal.com.