

CASE STUDY

CALCIMAX® 450

Safe, fast & cost-efficient neutralisation and treatment of wastewater

APPLICATION IN MEAT PROCESSING INDUSTRY

INITIAL SITUATION

In the poultry processing plant, a flotation is operated as a pre-clearing. So far, for neutralisation 50% caustic soda and PAC have been used.

The use of caustic soda resulted in the following situations and conditions:

- Blocked dosing pipes due to crystallisation of the caustic soda at temperatures below +10°C to +8°C
- High pH fluctuations in the flotation (pH 5.6 to 9.0 see graphic 1)
- Destabilised flocs in the activated sludge of the WWTP due to high sodium content

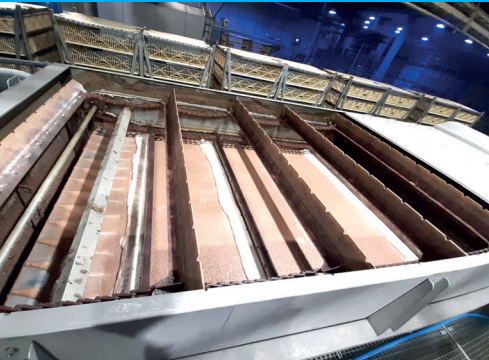
TASKS

Optimisation of the neutralisation by replacing the caustic soda with the highly concentrated, stabilised lime **CALCIMAX® 450** and elimination of the weaknesses mentioned above.

RESULTS

Immediately after starting the trial operation with **CALCIMAX® 450**, the following changes became apparent:

- Free dosing pipes due to free-flowing product
- Better storage stability of **CALCIMAX® 450** up to +5°C compared to NaOH
- Minor pH deviations (6.5 to 8.4 see graphic 1), resulting in savings of consumption quantities:
 - >> Minus 12% of neutralising agent
 - >> Minus 5% of PAC (polyaluminium chloride)



KEY DATA OF THE APPLICATION

Savings due to CALCIMAX® 450:
Neutralising agent 12 %
PAC: 5 %

Conditioning:
PAC + polymer

SUMMARY

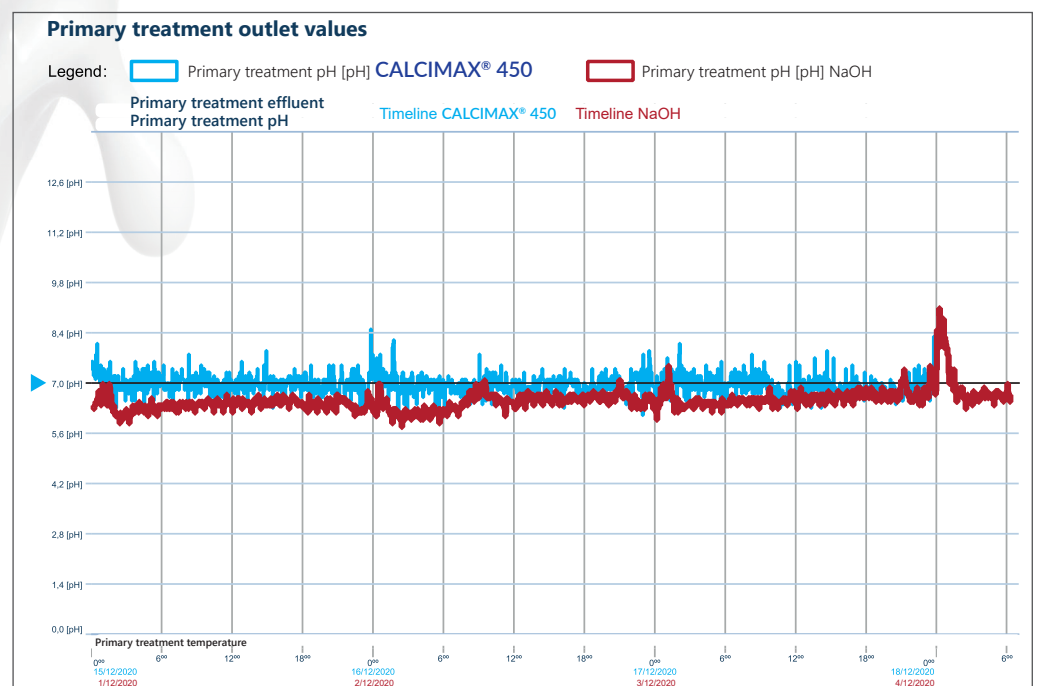
„Since we have been using **CALCIMAX® 450**, the flotation has been much more stable. Also the initial concern that the product will clump or settle was refuted.“

(Franz V.,
Responsible Head of Wastewater Treatment)

OUTLOOK

Due to the positive effects of the trial operation, a permanent switch was made to **CALCIMAX® 450**. The flotation is much more stable and trouble-free.

We also expect improved results for the downstream WWTP, which will be evaluated after an appropriate period of use.



Graphic 1: Comparison of neutralisation curves **CALCIMAX® 450** vs. NaOH 50%