ALMAMET
INTERNATIONAL GROUP

SOLUTIONS FOR METALLURGY

FLUIDIZED LIME

A GLOBAL APPROACH WITH LOCAL SOLUTIONS

FLUIDIZED LIME

Almamet has pioneered the use of lime as a desulfurizing reagent in numerous countries. Improving the quality, efficiency and flowability have been at the forefront of developing Almamet's lime based reagents.

Almamet's fluidized lime is tailor-made and adapted to the requirements of each injection facility to achieve efficient and reliable desulfurization processes.

In-house production of Almamet fluidized lime using converter lime fines

Almamet has developed the in-house production of fluidized lime at site. Converter lime is soft burned and has a high reactivity. Due to the brittle structure of this lime, a lot of undersized particles are created during transportation. Almamet uses these fine fractions for the production of fluidized lime, suitable for injection into the melt, with excellent matellurgical results.

By using material that creates problems and costs for the steel plant as base for a high value desulfurization reagent, an environmentally sustainable and cost reducing solution for lime fines, otherwise ending up in dedusting systems, is found.

Almamet is continuously improving the performance, economics and environmental impact of its lime based desulfurization reagents.

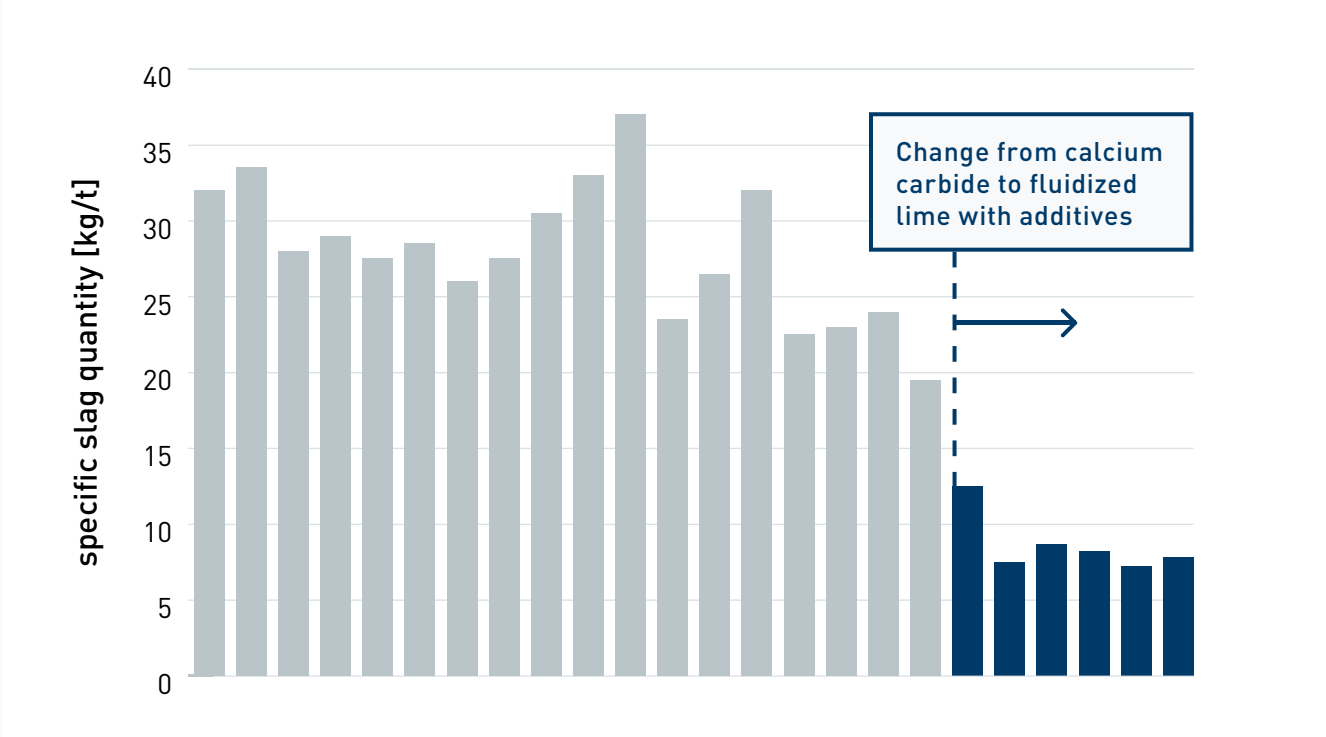
Almamet lime blends contain additives to reach specific aims. The generated slags show a reduced viscosity and an increased surface tension. This leads to lower iron losses and good seperation between metal and slag during skimming. The storage life and injectability are greatly improved. Almamet develops fluidizers and determines optimal grain sizes for all kinds of lime.

A reduction of the specific slag weights from 30 kg/t hot metal to a 15 kg/t hot metal or even less leads to significant process improvements:

- Higher yield of the hot metal desulfurization process
- Important cost savings due to lower iron losses
- Lower slag quantities
- Lower slag treatment cost
- Significant savings on environmental expenses

The excellent flowability of Almamet's lime blends also improves the efficiency of the magnesium reagents injected simultaneously. A smooth lime flow throughout the injection process provides a perfect carrier material for magnesium based reagents. This results in a smooth and efficient treatment.

Almamet's solutions for lime based reagents ensure a cost effective, safe and environmentally friendly hot metal desulfurization process.

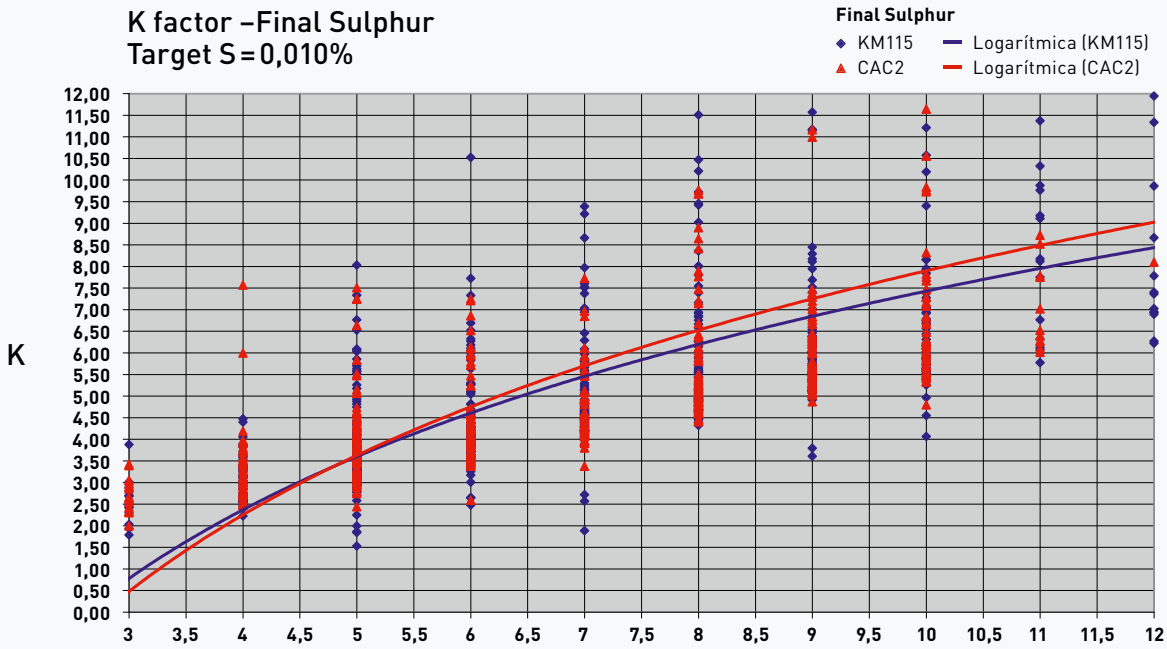


LIME MAGNESIUM BLENDS (KM)

Almamet produces lime blends containing magnesium (KM) for hot metal desulfurization with a mono injection system. These reagents have replaced calcium carbide based blends in many steel plants.

Almamet's KM blends are designed to reach, or surpass, the desulfurizing efficiency of calcium carbide. All lime magnesium blends are tailor-made. They are designed individually for every plant. The graph below shows a long term comparison between calcium carbide and KM 115, a lime blend containing 15 % magnesium. While the desulfurization efficiency is nearly identical, significant improvements in iron losses and reagent cost are achieved.

Almamet's lime magnesium blends are non-hazardous goods. Transport, storage and utilization are easy and safe. They are treated to avoid segregation and contain additives for a higher efficiency and lower iron losses. Perfect flowability and homogeneity are ensured by fluidizers adapted to the product.



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