# Kraft – for the pulp and paper industry







# **Expect** a little more

Pulp and paper production requires large quantities of lime. Maintaining a high rate of production requires high and uniform quality and, of course, good runnability.

And we are also required as a partner to deliver on time, to have contingencies in place should anything unforeseen occur, and to always keep abreast of the latest developments.

One of SMA Mineral's foremost areas of specialisation is lime products for the pulp and paper industry. We are experts in this field.

But we also feel that you should expect a little more.

Here at SMA Mineral we look after our customers and we want to develop together with you as a customer. To this end we maintain ongoing contact and hold quality meetings to ensure that we are meeting your requirements.

A partnership with us is a partnership with knowledgeable and enthusiastic employees who all work according to our shared values – expertise, reliability, flexibility and innovation.

Welcome!

# The right product, at the right time, in the right place

Many large, complex manufacturing processes are dependent on the right lime products being available at exactly the right moment. With a broad range and several internal and external loading sites, we make sure that you as a customer get what you need. At exactly the right time.



#### **Delivery reliability**

We have production units in five countries, and thanks to our numerous production facilities we can ensure that deliveries are always made according to plan. Our lime works in Sandarne, Oxelösund, Mo i Rana and Röyttä produce highquality quicklime for various processes, while slaked lime is produced in Rättvik and Röyttä. Thanks to our warehouse terminals in Otterbäcken and Söråker our proximity to many of our customers has been further improved.

#### **Own haulage operations**

Efficient logistics are crucial. Here at SMA Mineral we have complete control of transportation, partly because we have our own vehicles and partly because of agreements with haulage contractors. As a customer, you can always reach our transportation team, who are available around the clock every day of the year.

#### Silo monitoring

By monitoring customers' silos we can see when it's time to top them up with lime. We thereby take full responsibility for ensuring availability – a secure and efficient arrangement for you as a customer.

#### **Contingency planning**

In order to guarantee deliveries on time, we have stable contingencies in place at SMA Mineral. If a production stoppage occurs, we generally have capacity to deliver from one of our other lime works.

#### The right quality

We guarantee that you as a customer will receive the right quality of products, which includes guaranteeing purity. The causticising process within the pulp industry requires a lime product with a high level of purity and low content of non-process elements (NPEs). By continually checking the reactivity, we also ensure a smooth operation and that the lime is easy to handle and matches your requirement specification and your internal processes.

In order to ensure the properties of the material over time, we offer a summary of analysis data in the form of weekly or quarterly reports.

"Our customers must always have peace of mind. That's why we're available around the clock, every day, all year round."

> Thomas Brunzell Transport Manager SMA Mineral



# Our products The Kraft family

At SMA Mineral we manufacture a number of different lime products for the pulp and paper industry, and whatever process you conduct as a customer we are sure to have products to suit. Want to customise products to your requirements? No problem.

### **SMA Kraftmesa:**

Re-burnt untreated lime sludge. Lime sludge, headed to landfill, is converted into top-quality raw material. SMA Kraftmesa provides good runnability, reduces the need for acid washing and offers good reactivity similar to the customer's own re-burnt sludge.

# SMA Cellkalk:

Lime with calcination suited to the pulp industry. High purity level thanks to low content of non-process elements (NPEs) and high calcium oxide (CaO) content.

# SMA Kraftkalk C:

A mixture of SMA Kraftmesa and SMA Cellkalk with a high level of purity. The ratio of SMA Kraftmesa and SMA Cellkalk can be adjusted to achieve the desired result.

## Internal water purification and adjustment of pH values

SMA Mineral has several lime products suitable for internal water purification and adjustment of pH values of process water. Whatever product you use, we can meet your demand for high-quality products. The most common products for this type of application are quicklime, slaked lime and crushed and ground limestone products.

# From waste product to top-quality raw material

Can untreated lime sludge be converted into lime? Absolutely. Using SMA Mineral's unique Sandarne concept, this landfill waste can be turned into top-quality raw material.

Here at SMA Mineral we are working towards sustainability in numerous different ways, including converting residual lime sludge into quicklime. Lime sludge is a residual product from pulp production. Using the Sandarne concept, the sludge is washed to remove contaminants, and then burned in a kiln to produce a new raw material – SMA Kraftmesa – a high-grade quicklime ready for re-use in pulp and paper mills. In other words, the best form of recycling.

#### SMA Mineral steps up

The pulp mills have their own kilns to recycle the lime sludge into quicklime, but in the event of a breakdown SMA Mineral is ready to step up. Thanks to our high storage capacity and efficient transport operations, we can take in the untreated lime sludge, which would otherwise, in the worst-case scenario, be sent to landfill. The sludge is transported from the mills to Sandarne's lime kiln, where it is burned and then returned to pulp mills as substitute lime or so-called make-up lime, often after mixing with quicklime with a high level of purity.

#### Just like their own product

There are stringent requirements for the quicklime used in pulp mills, and SMA Kraftmesa, as it is known, is extremely popular with SMA Mineral's customers. It reacts more slowly than bought-in lime and is just like their own product, which yields smoother running.



### The process

1.SMA Mineral collects excess lime sludge from the customer.

- 2. The sludge is transported to Sandarne lime works by boat or truck.
- 3. The sludge is mixed with water, filtered and washed to remove contaminants.
- 4. The sludge is converted into quicklime in the kiln.
- 5. The lime sludge becomes SMA Kraftmesa and is now ready for delivery.
- 6.At the mixing station SMA Kraftmesa is mixed with SMA Cellkalk to give a product we call SMA Kraftkalk C.
- 7. The re-burnt lime sludge is returned to the pulp mill as SMA Kraftmesa or as the mixed product SMA Kraftkalk C.

# A sustainable SMA Mineral – today and tomorrow

It is in our nature to offer products that yield optimum results. It is equally essential that our production processes are conducted with the greatest possible consideration for the environment. Both today and tomorrow.

Environmental sustainability is part of everything we do. We constantly endeavour to achieve the optimum level of safety in dealing with chemicals and better utilisation of resources – with regard to energy consumption, transport and efficiency of materials. Many of our products also have a positive effect on the environment: we supply lime to applications purification of flue gases and drinking water, neutralising acidified watercourses, sanitising contaminated soil and improving farm soil quality.

We are also involved in a number of different projects concerned with protecting the environment. Among other ventures, SMA Mineral is involved in financing a new centre at the Department of Applied Physics and Electronics at Umeå University, to strengthen research in the field of sustainable cement and lime production.

# **Our history**

Our history began in a mining area that dates back to the 14th century – at Gåsgruvan quarry outside Filipstad in Värmland. The Juvél family acquired the lime works from Uddeholm in 1980, and that was the start of what is now SMA Mineral.

Today we have production facilities in Sweden, Norway, Finland, Estonia and Bulgaria and are a leading supplier of high-quality lime products to a variety of industry segments.

Want to know more? www.smamineral.se

# **Our production sites for our lime:**

**BULGARIA** 

Dimitrovgrad

Malko Tarnovo Shumen

SWEDEN Berga Boda Eneby Falkenberg Gåsgruvan Jutjärn Klinte Kullsberg Luleå Oxelösund Rättvik Sandarne Stucks

**FINLAND** Kalkkimaa

Mo i Rana

Seljeli

NORWAY

Loukolampi Ristimaa Röyttä

**ESTONIA** Vöhmuta

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