



# LIME FOR MINES & METALS

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# Build your ...



*Close co-operation on the personal level and our range of products for all stages of mining mean reliability and profitability for you as our customer.*

SMA Mineral is one of the Nordic region's largest producers of lime products. We have extensive experience of lime and handling lime. Lime is a natural product and it provides the most natural way of restoring the natural balance. The processes followed to prepare lime for its various applications are like a continual ecological cycle, with very little of the raw material going to waste. Lime is highly versatile and has practical use in a wide variety of areas, including gardens, forests, farms, roads and lakes as well as in combined power and heating plants, mines, treatment of water and flue gases, pulp mills and the construction industry.

SMA Mineral has the technical competence to manage the processes and applications in which lime plays such an important role. Our head office is in Persberg, Sweden, a large mining area in western Sweden which has traditions going back several hundred years.

## A pure mining product

Lime is rather unusual in that it is a completely natural chemical in the mining industry. When used correctly, lime's unique, natural properties are worth their weight in gold.

Our lime products have an important place in the full life cycle of the mine. In addition to extensive knowledge about the function of lime, we have long experience of operating our own mines. This knowledge we have of the use of lime in other applications is of great benefit when we help you make the right choices through the various stages of mining activity.

One of the strengths of lime is the way it can be used to regulate pH levels, but it can also be used for stabilization, drainage, filling and filtration. Both our limestone and our burnt and slaked lime products have been selected for optimum performance at every stage before, during and after the life cycle of the mine.

## MINE BUILDING

Reinforcement material

Stabilization material

Building material for pools

## MINE OPERATION

Fine adjustment of pH level in the enrichment process

Treatment of flue gases

Regulation of pH level of process water

# ... gold mine with lime

Just as lime is a natural part of the eco-cycle, our products have a role to play at every stage of the full life cycle of the mine. Lime's practical and economic benefits are utilized at every step, mainly as an adjuster of pH levels but there are also other excellent features.

## Mine building

During the mine development and building stages our lime products are used as strengthening and stabilization material. Limestone is also an excellent building material for mine pools helping to ensure natural pH levels in water.

## Operation

Choosing the right lime product can make a strong contribution both to profitability and a better environment. Lime's low reactivity makes it perfect

for fine adjustment of the pH level in the enrichment process enabling you to control the extraction of precious metals with great accuracy. Lime also helps regulate pH in process water so that it can be reused. Before used water is emitted back into the natural environment it is treated with lime to restore the pH balance and rid it of toxic metals and chemicals. The treatment of flue gases is another area where lime improves the environment.

## Post-treatment

Both during and after operations lime contributes to safer conditions and a reduced environmental footprint. Lime can be used to bind dust and as filler in exhausted mines. With our 40 years of experience of using lime in natural environments we have the competence needed to neutralize old mine water.



## Close contacts with customers, reliable deliveries

Our organization is designed to give you the best possible service. High availability and strong dialogue create the right conditions for building trust and security. Reliable deliveries are another important component. In our transport logistics we use ships, trains and trucks. We can deliver lime in

Big Bags, bulk or flat bed trucks. We have extensive production and storage capacity and a well-established transport organization. Secure delivery has become one of our most important service features over the years.

## PERIOD

pH regulation and treatment of water emitted back into the natural environment

## POST-TREATMENT

Binding of dust

Filler material

Neutralization of old mine water





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