

## Plaster, Gypsous Spath, Calcium Sulfate

Plaster occurs in two different natural types. The common type consists of two mol of water of crystallization ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ) whereas the other type is an anhydrous form called Anhydrite. The common plaster crystallizes monoclinically, the Anhydrite rhombically.

The mineral structure of plasters is very versatile; Plaster cast can form mighty mountain ranges which can be found at the southern edge of the Harz region in Germany, in Russia, the United States, Nova Scotia, Italy amongst others. The pure-white ground, non-burnt aqueous plaster is known as "Leichtspat, Lenzin & Federweiß" depending on the purity and the degree of grinding. Dead-burnt gypsum is called Annaline.

### Application:

Anhydrite Plaster and Leichtspat are used as filler medium in the paint production. Numerous colors for paint and decorative painting (e.g. lead chromates, ultramarine, green rouge, red and yellow earth colors, manganese brown, colored lacquers etc.) contain different amounts of additives which reduce production costs without having an effect on the hue. Fillers should only be used finely ground and should be added throughout the production process in order to avoid visible residues in the powder or the coat. Low-quality blends of pigments and fillers have discredited certain paints a lot. High quality paints are mainly free of additives.

**Selenite, Marienglas #11800, 11810** clusters look like lined up glass plates and can be cut easily along the lines. These plates have been used as cheap glass substitute for reliquary in medieval times. The ground Marienglas shows a mica-similar shiny effect, e.g. in a lime paint. Marienglas consists of very pure plaster which dissolves very slowly also in exterior coats.

**Alabaster #11840, #11850** is a pure type of plaster. The opposite crystal alignments change from transparent to opaque white. The ancient Egyptians and Etruscans have already used Alabaster as material from which valuable artistic artefacts such as vases and lights were produced. In the region of Volterra Alabaster is still processed in today's production.

Alabaster pieces can also be used to increase the shiny effect of marble stucco.

Kremer Pigmente offer Alabaster in larger (suitable for sculpturing) or smaller pieces and Alabaster sand or dust.

**Terra Alba #58300** natural plaster which is used as filler in the paint production.

Burnt plaster is an important raw material in the construction sector. Casting and modelling plasters are produced for different applications: **Alabaster plaster #58340, #58343** e.g. for artistic castings.

**Anhydrite Plaster #58320** is dead-burnt gypsum. When plaster is burnt at a temperature of over 300 °C it is merely water absorbate and cannot be bound anymore.