

Raw materials and description:

The **natural gypsum stone** is a mineral formed by di-hidrated calcium sulphate. In its crystalline structure there are two water molecules by one of calcium sulphate. Put under calcination (120-160 °C), it releases part of the crystal water, obtaining itself a **semihydrate** of calcium sulphate or "**burnt gypsum**", that being mixed with water, is solidified again and crystallized, reconstituting the original rock in its natural state. The plaster is a gypsum variant, finer, white and of greater hardness than normal gypsum, employed like material of ornamentation and with other stucco additives.

"**Black gypsum**" is the traditional name for an artisan semihydrate, that is obtained from natural mineral. It contains more impurities than **white gypsum**, it is of grayish color, and suitable for the first layer in the inner plasters of the constructions. It's also suitable for to use in mortars.

"**Dead gypsums**" are those submissive to industrial processes and higher temperatures of calcination, from 300 to 700 °C or superior (if so by-products of the industry of cement and with chemical additives and retarders), thus form different more or less insoluble **anhydrite** classes, of greater resistance, little porosity and incapable to regulate environmental humidity, with the consequent danger of condensation and formation of fungi.

Due to this, for works of restoration and eco-building, as gypsum-lime or plaster stuccos, are only due to use natural burnt gypsums:

Given its porous structure, crystallized natural gypsum contributes exceptional bio-climatic properties. Its excellent qualities of isolation and hygrometric regulation, directly do of it an irreplaceable material in the restoration and eco-building, being used directly on the walls or like mortar. Its high plasticity confers to it infinity of possibilities in decoration. By its bio-climatic and natural properties, the natural gypsum coatings contribute to the comfort, creating a healthy and balanced climate and atmosphere in livings and other interior spaces.

Technical qualities of our natural gypsums:

UNE 102031/82	White gypsum (fine)	Black gypsum (thick)
aspect	polvo blanco	grey powder
Index of purity	> 75%	87,7%
Time of delay (minutes)	< 8 min	4'35''
Time of use (minutes)	> 10 min	7'07''
Compression strenght	> 2,0 N/ mm2	18 kgf/cm2
	> 1 MPa	-
Determination of the PH	> 6	>7
refinement	retention 800 micras: 0% retention 200 micras: 15%	31,4%
Bound water content	> 6%	5,2%

Precautions in its application:

- Conserve the product in its original package.
- To store the bags in dry and protected areas.
- Use potable water and clean containers.
- Apply on surfaces completely free of impurities.
- Don't mix with cement.
- Avoid the application on cement surfaces that still are not totally dry.
- It is possible to be mixed with low sulphate limes, especially with slaked limes.
- Don't dry artificially.
- When working in atmospheres little ventilated the use of protection mask is recommended during the preparation processes, generating of dust.
- Don't apply in humid cellars or surfaces exhibited to the water.

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