

Purest Gypsum

The gypsum extracted from Cormeilles is among the world's purest. The quality of the plasters produced in Cormeilles makes them highly competitive on the global market.

(This article was originally published in 2010, before open-cast mining was discontinued.)

White gold



Photo: Open-cast operations at Cormeilles in 2010. The first (upper) seam of gypsum is covered by marls and sands. The seam is currently (2019) worked by room-and-pillar (underground) mining deeper into the hill.

Plaster of Paris

Gypsum from the Paris basin has been called "white gold" due to its exceptional purity. This is especially true in the case of Cormeilles, where the gypsum is 95 percent pure for the first (topmost) seam and 90% for the second seam. The low iron oxide content means that the resulting plasters offer exceptional whiteness. The small grains of silicon dioxide must be removed to manufacture molding plaster; crushing and filtering operations eliminate close to 100% of the silicon dioxide.

The uniformity of the gypsum is also instrumental in producing the highest quality plaster, and this is another reason Cormeilles stands out. Virtually all the gypsum is processed into plaster. Annual production exceeds 100,000 tonnes.

International recognition

The following industries are the leading users of molding plaster: ceramics (molds for sanitary fixtures, tableware, roof tiles and refractories), interior design and decoration, reproduction of art work (the Louvre museum workshop), plaster mold casting industries (glass, tires, footwear, jewellery, aluminium

and bronze casting, and so on. Lower volumes are used by the cosmetics industry and for dental and medical use (for plaster casts).

Plaster from Cormeilles enjoys international recognition. Sixty percent of production is sold in export markets, primarily in Africa (for art and decoration) and Asia (for ceramics). The Cormeilles site has 150 direct employees and indirectly provides work for over a thousand people.

Sustainable operation

At the time of writing (2010), the reserves available for open-air extraction, under government permits, would be exhausted within a decade. Studies conducted by the operator, Placoplatre, proved the feasibility of underground mining in order to continue production in the plaster plant, in a safe and environmentally sound manner.

Analysis of Gypsum from Cormeilles

Note 2019: Only the first (upper) seam is currently worked, in underground mining operations.

Gypsum purity	First seam	Second seam
Calcium sulfate $\text{CaSO}_4 \bullet 2\text{H}_2\text{O}$	95%	90%

Analysis of impurities	First seam	Second seam
Carbonate	1.9%	4.0%
Silicon dioxide SiO_2	0.53%	1.46%
Iron oxide Fe_2O_3	0.02%	0.09%
Sodium oxide Na_2O	0.02%	0.02%
Potassium oxide K_2O	0.02%	0.06%
Magnesium oxide MgO	0.15%	0.29%
Aluminum oxide Al_2O_3	0.05%	0.18%
Strontium oxide SrO	0.15%	0.35%
Titanium dioxide TiO_2	<0.03%	<0.03%
Manganese oxide MnO	<0.005%	<0.005%
Phosphorus pentoxide P_2O_5	<0.04%	<0.04%