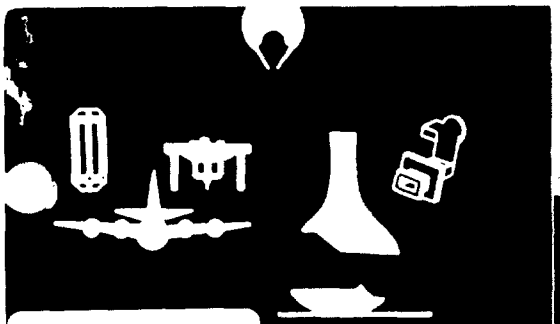

PLAINTIFF'S EXHIBIT

GP-673

GEORGIA-PACIFIC

GYPSUM DIVISION

INDUSTRIAL PLASTER

BULLETIN NO. 7

PARTING COMPOUNDS FOR GYPSUM CEMENTS

In all applications where a gypsum cement is cast in a mold or over a pattern, it is necessary to prepare the pattern or mold surface with a parting compound to prevent the gypsum cement from adhering to the mold. In the case of a porous mold or pattern media, it is necessary to treat this porous surface with a sealing agent.

SEALING AGENTS

All patterns and molds which are constructed from a porous media such as wood or gypsum cement must be sealed prior to the application of a parting compound.

A good grade clear lacquer such as DuPont Duco 1907 has been found to be highly satisfactory for this use. The lacquer should be thinned with lacquer thinner (approximately 1 to 1) and either brushed or sprayed onto the pattern or mold surface. It may take several coats to thoroughly seal the surface. The lacquer should be allowed to dry between coats.

In the case of wood patterns or molds, it may be necessary to use a wood filler to fill the grain of the wood prior to the application of the sealing agent. When the sealing agent has thoroughly dried, a parting compound may then be applied.

PARTING COMPOUNDS

In order to provide a good release between the pattern or mold and the gypsum cement cast, a good parting agent must be used. Some of the more commonly used parting compounds are shown below.

LARD OIL – Lard oil may be used as a parting compound provided the pattern and room are reasonably warm. If too cold, lard oil will congeal and will not spread. Kerosene may be mixed with the oil if a thinner medium is desired.

SOAPS – A number of special "Potter's" soaps are available for use as parting compounds. These soft potash soaps are applied with a sponge and worked into the mold surface. A number of coats may be required to insure a good parting. All excess soap is wiped off with a clean wet sponge before pouring the gypsum cement into the mold.

STEARIC ACID – KEROSENE – Mix 1/4 lb. finely shaved stearic acid with 1 pint of kerosene and 1 oz. of Aerosol O. T. 100 and heat the mixture carefully until the stearic acid is dissolved. Apply to the mold surfaces with a soft brush as sparingly as possible. If brush marks show, thin the mixture with additional kerosene. (NOTE: This parting compound is widely used in the pattern shops. It is not recommended for continuous use on alkaline gypsum cements.)

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PETROLEUM JELLY – Vaseline cut with approximately twice its weight of kerosene and warmed to make a smooth mixture is often used as a parting compound. It is normally applied in a thin coat using a soft brush.

WAXES – Many commercially available paste waxes can be used as a parting compound. They should be applied in a thin coat to the mold surface and polished with a soft cloth until a glass-like surface is obtained.

LIGHT LUBRICATING OIL – A light weight (SAE 10) engine oil or thin white medicinal mineral oil can be used if sparingly applied. An excess will cause runs on the surface of the gypsum cement cast.

CAMPHOR – Spirits of camphor is used as a parting compound on fine detail work such as the reproduction of jewelry.

SPRAY PARTING – In the manufacture of plaster molds for metal casting, the molds are cast over metal patterns. For this type application, the following formula is sprayed on the pattern.

SAE 10 Mineral Oil	10.00%
Bayberry Wax	2.75%
Aerosol O. T. 100	0.25%
Water	87.00%

POWDERED MICA – It has been found useful to add a finely ground mica to most parting compounds. Satisfactory results have been obtained by adding 1/4 to 1/2 cup of the powdered mica to 1 quart of the parting compound solution.

This information is provided as an aid to obtaining optimum results with gypsum cement casts. The recommendations are made without warranty or guarantee, since the methods and conditions of application and use are beyond our control.