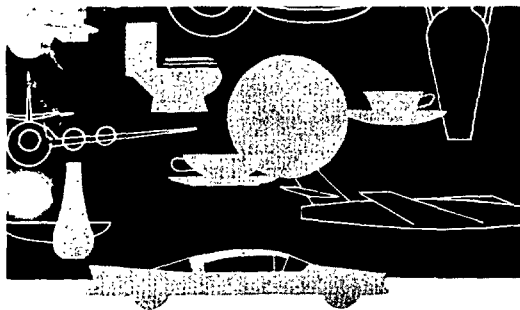




BESTWALL GYPSUM COMPANY

INDUSTRIAL GYPSUM DIVISION
BULLETIN NO. 215

PLAINTIFF'S EXHIBIT

GP-668

PLASTERS FOR THE ART AND NOVELTY INDUSTRIES

SUNFLOWER MOLDING PLASTER

Use: For plaques, statuettes, dolls, carnival ware, novelties, molds for casting latex, waste molds, models, mold cases.

A white molding plaster of highest purity (over 99%).

STATUARY CASTING PLASTER NO. 1

Use: For hollow type castings – better grade plaques and statuary.

A finely ground formulated plaster with good soaking characteristics. Mixes quickly to a smooth, even pouring consistency. Contains surface hardening additives for increased chip resistance and reduced paint absorption. Casts made with this plaster should be thoroughly dried and then sealed with paint or a clear lacquer to avoid mildew formation on the cast.

REGULAR STATUARY PLASTER

Use: Ornamental castings, art novelties

Similar to Statuary Plaster No. 1, but does not produce quite as hard or dense castings. Casts made with Regular Statuary Plaster should be thoroughly dried and sealed with paint or clear lacquer to avoid the growth of mildew on the cast.

DENSITE K-8

Use: All types of art novelty work, slush and solid casting and molds for latex novelties.

Densite K-8 is a high strength gypsum casting material. It is hard, has low paint absorption, and is recommended for quality castings.

DENSITE K-34

Use: Lamps, bookends, all solid cast or cored items requiring maximum hardness.

Densite K-34 is the hardest and strongest Densite, and castings made from this material can be finished with a metallic paint to closely resemble metal objects. The high density of the Densites adds to this illusion when the object is handled.

All the above plasters are available with glass fibers, a Bestwall patented exclusive.

SGP 0026132

SETTING TIMES

All these superior casting plasters are available with standard or special setting times. The standard setting time from 30 to 40 minutes provides adequate working time for most users.

MOLDS

All these plasters may be cast in properly prepared molds. Molds of porous materials must be sealed. All molds must be kept clean. A parting agent may be applied before use. Molds may be of rubber or other conventional flexible materials. Wood, metal and other rigid

materials are sometimes used, but in general the flexible molds are preferred for easier separation of mold and casting. Most shops now use rubber molds, made by applying repeated layers of self vulcanizing latex to a model until the required thickness is obtained.

Trim removed casts by carving or sanding and dry the cast properly. Avoid sudden cooling and over or under drying. Use low temperature – under 125°F – and high velocity circulating air for best drying results.

CAUTION – Do not cast Densite K-8 or Densite K-34 in glue molds. These products will generate sufficient heat as they set to partially melt glue molds. Flexible molds for use with Densite should be made from latex, rubber or synthetic rubber.

Slush type hollow casts are made by pouring the mixed plaster slurry into the mold, slushing it about, draining the excess and repeating the operation until the required wall thickness is obtained. Good plasticity is necessary for best results. It is usually desirable to increase the consistency of successive pours. Failure to do so may result in a poor bond between the pours.

MIXING

When mixing by hand the following procedure is recommended:

1. Clean all mixing equipment before use.
2. Carefully measure the exact amount of water into the mixing container.
3. Weigh the plaster accurately.
4. Sift the plaster into the water.
5. Allow the plaster to soak until the bubbles stop rising to the surface of the water.
6. Mix carefully until the slurry is creamed. Don't whip or beat air into the mix.

WATER TO PLASTER RATIO

The correct ratio of water to plaster varies with different plasters. The ratio shown in the following table is under the heading "Use Consistency", and is expressed as pounds or pints of water recommended to mix one-hundred pounds of plaster.

PRODUCT	RECOMMENDED USE CONSISTENCY	DRY COMPRESSIVE STRENGTH	HARDNESS NUMBER
Sunflower Molding Plaster	68–70	2100–2400	20–25
Statuary Casting Plaster No. 1	62–64	3000–3400	30–34
Regular Statuary Casting Plaster	64–66	2500–2900	28–33
Densite K – 8	43–45	5500–6500	50–60
Densite K – 34	28–32	9500–11500	140–145

PARTING COMPOUNDS

In all operations where gypsum plaster is cast in a mold, it is necessary to coat the mold with a parting medium to prevent the plaster from sticking to the mold. The following parting compounds are recommended for use with Bestwall plasters.

STEARIC ACID

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 as thinly as possible to mold surfaces with a brush. If brush marks are discernable, thin with kerosene. This parting medium is not recommended for use on alkaline plasters.

LARD OIL

Lard oil may be used as a parting compound provided the pattern and room are reasonably warm. Lard oil congeals in cool environs and will not spread easily.

However, kerosene may be used as a thinner.

SOAPS

"Potter's" soaps — soft potash soaps — are available as parting compounds. Apply to the mold with a sponge and rub in well. Repeat this several times. Wipe off excess with a clean sponge before pouring plaster in the mold.

PETROLEUM JELLY

One part warmed vaseline to two parts kerosene, applied to the mold in a thin coat with a soft brush, makes an excellent parting compound.

WAXES

Commercially available paste waxes, applied in a thin coat to the mold surface and polished with a soft cloth until a glass-like surface is obtained, are also recommended as a parting compound with Bestwall plasters.

LIGHT LUBRICATING OIL

A light (SAE LOW) engine oil or thin white medicinal oil may be used if sparingly applied. An excess is liable to cause separator runs.

CAMPHOR

Spirits of camphor is used as a parting medium for fine 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 work the following formula is sprayed on the pattern:

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

PLASTER FROM PLASTER

Wet the set plaster thoroughly with water until it stands on the surface. When desirable use an oil in water emulsion in place of the water, or even a soap in water emulsion.

RUBBER MOLDS AND CASTS

No parting medium is necessary when making a rubber mold from a plaster pattern if pre-vulcanized latex is used. If ordinary latex is employed, paint plaster pattern with lacquer or banana oil, or vulcanize the rubber mold on the pattern. To keep the finished rubber mold from sticking to the positive plaster impressions, apply a mixture of liquid soap, glycerine and water, or a zinc stearate and alcohol mixture.

PLASTER FROM SKIN SURFACES

In making face impressions, use vaseline on hair areas. Mineral oil can be used on skin surfaces devoid of hair.

RUBBER CASTS FROM RUBBER MOLDS

Coat the rubber mold with equal parts of water, liquid soap and Epsom salts. A thin coat of shellac or lacquer may also be used as a separating medium.

Additional bulletins available from Bestwall Gypsum Company, 2 Industrial Boulevard,
Paoli, Pennsylvania