

BESTWALL GYPSUM COMPANY

INDUSTRIAL GYPSUM DIVISION
BULLETIN NO. 164

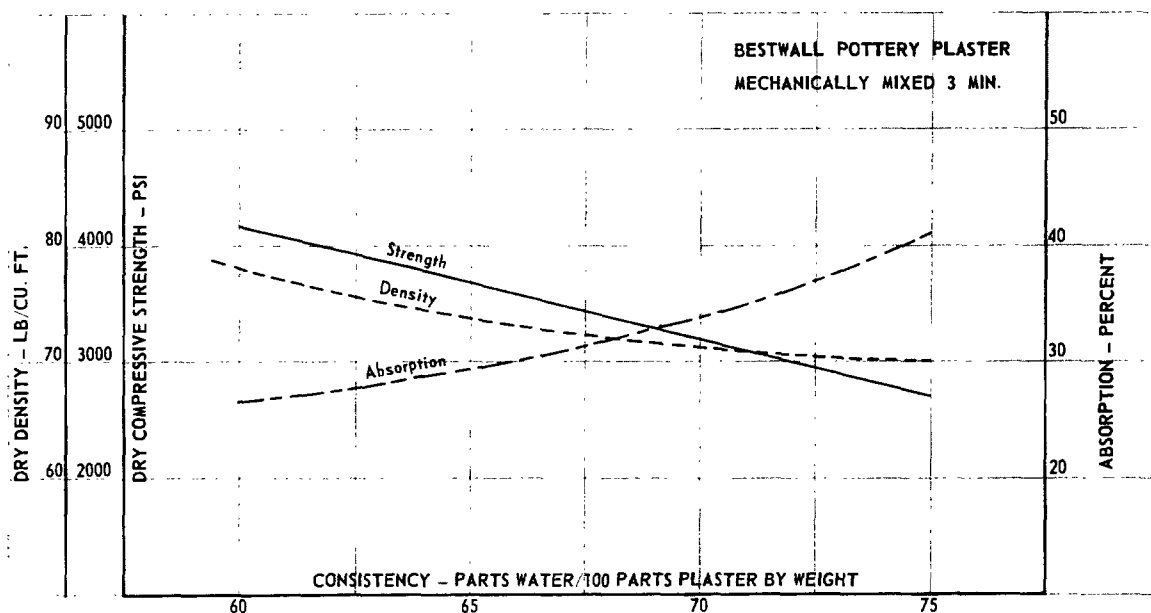
March 1, 1962

BESTWALL POTTERY PLASTER

Bestwall Pottery Plaster is a new pottery plaster from our new gypsum plants located at Brunswick, Ga., New Orleans, La., and Wilmington, Del. It was developed by the Bestwall research laboratories to satisfy the known needs of the Pottery Industry for a pottery plaster with uniform absorption, uniform grind, uniform consistency and uniform setting time.

Bestwall Pottery Plaster is light green in color insuring easier mold inspection and less eye strain.

INSURE HIGH QUALITY WARE WITH HIGH QUALITY MOLDS OF BESTWALL POTTERY PLASTER.



Other literature available from Bestwall for the Ceramic Industry.

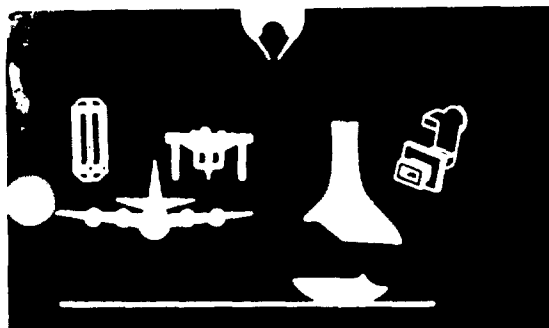
- #3 Field Test Procedure - Pottery Plaster
- #5 Mechanical Mixing of Plaster
- #205 Bestwall Pottery Plasters for the Ceramic Industry
- #206 Check List - Common Troubles - Pottery Mold Shops

PLAINTIFF'S EXHIBIT

GP-669

SGP 0026139

DENSITE GYPSUM CEMENTS • MOULDING PLASTERS • STATUARY PLASTERS • DENSFLOR • CERTROCK
ORTHOPEDIC PLASTERS • POTTERY PLASTERS • PLATE GLASS PLASTERS • SPECIAL INDUSTRIAL PLASTERS
BESTWALL GYPSUM COMPANY • 120 EAST LANCASTER AVENUE • ARDMORE, PENNSYLVANIA



INDUSTRIAL PLASTER

BULLETIN NO. 206

CHECK LIST – COMMON TROUBLES – POTTERY MOLD SHOPS

The best insurance against trouble is using sound practices at all levels of production.

Good mold shop practices can be summarized as follows:

1. Plaster stock is rotated. The oldest is used first.
2. Plaster is stored in a dry and warm area.
3. Uniform mold density is assured by maintaining careful control of consistency used by the shop. Plaster and water are both weighed.
4. The soaking and mixing times are carefully controlled by time switches on the mixer.
5. Only water fit to drink is used and it is always used at the same temperature.
6. Molds are carefully dried at 125° F. with forced air before they are put into use.
7. Mechanical mixers with properly designed buckets and propellers are used or a continuous mixer of proper size and design is used.
8. Molds are treated as precision tools. They are handled with care and stored carefully.
9. The casting shops keep close checks on each mold's performance.

When trouble is experienced, the mold shop foreman should examine the problem to see which of the above conditions are being ignored. The best procedure is, of course, to see that the rules are not violated in the first place.

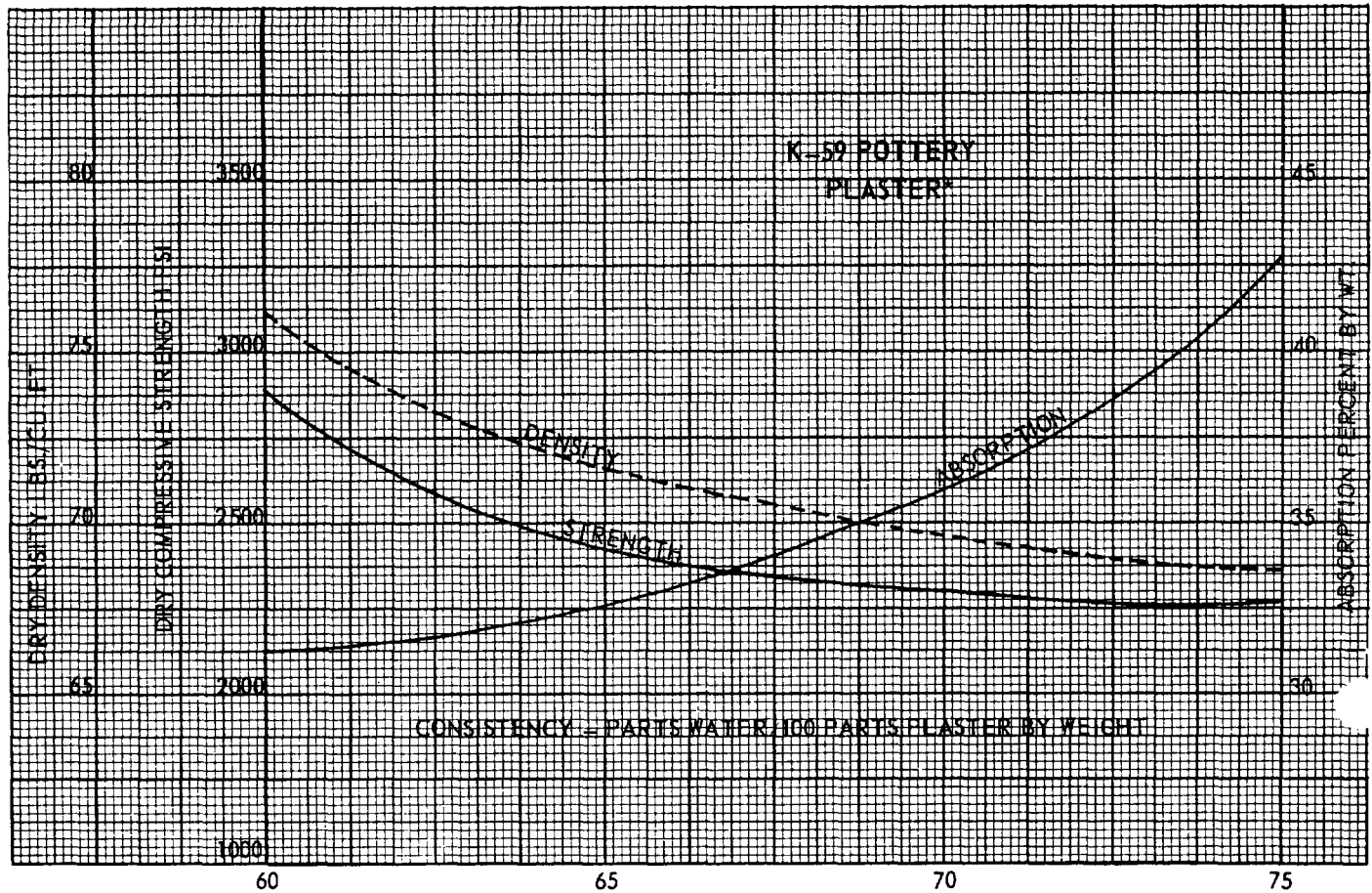
In the table that follows there is a list of the more common troubles encountered in pottery mold shops. Probable causes and suggested cures are shown for each trouble.

SGP 0026135

<u>IF THE TROUBLE IS:</u>	<u>INVESTIGATE:</u>	<u>CORRECT BY:</u>
1. Slow set	Mixing speed Mixing time Water temperature Age of plaster	Mix faster Mix longer Use warm water (Add accelerator) Use fresh plaster
2. Snap set	Contamination in bag Contamination in bin Contamination in mixing	Open fresh bag – Check storage Clean bin – Screen plaster Clean mixer – Clean bucket
3. Lumpy plaster	Exposure to water	Determine where wetting occurs In bag – In bin – While in storage – While in transit? Take appropriate action.
4. Soft molds before use	Mix consistency Burning in drying	Decrease water Lower oven temperature
5. Hard molds before use	Mix consistency	Increase water
6. Excessive expansion	Mix consistency Water temperature Mixing time	Increase water Increase temperature Decrease time
7. Soft molds after use	Sweating-out Drying	Dry at 125° F. with forced hot air.
8. Chalky molds after use	Burning in drying	Decrease temperature
9. Efflorescence	Contamination Poor drying	Dry so evaporation takes place from back.
10. Pinholes	Soaking Mixing	Increase soaking time 25° Pitch propeller blades Position propeller shaft 15° from vertical. Use bucket of proper design.
11. Hard spots	Mixing Drying Soaping	Increase soaking time – sift plaster into water. Dry so evaporation takes place from back of mold. Use less soap
12. Rough surface	Not creamed in Mix coarse plaster	Increase mixing time Use only high quality pottery plaster.

<u>IF THE TROUBLE IS:</u>	<u>INVESTIGATE:</u>	<u>CORRECT BY:</u>
13. Cracked molds	Handling Thermal shock Burning	Handle molds with care Protect hot molds from drafts – Use special thermal shock plaster Decrease temperature in drying Decrease drying time
14. Warped molds (Uneven drying)	Parting compound Plaster quality	Wash mold to remove parting compound Use only high quality pottery plaster
15. Short life	Wrong type plaster Excessive soap Hard spots Efflorescence Pinholes Mixing Used while green Handling Consistency Soft molds	Use only high quality pottery plaster Clean molds – use less soap See #11 on preceding page See # 9 on preceding page See #10 on preceding page Use clear water Weigh water and plaster Sift plaster into water Soak until all plaster is wet Time soaking period Use mechanical mixer Use clean equipment Mix until creamed Control mixing time Dry molds before using Draw to attention of Supervisory Personnel Adjust consistency See #7 on preceding page
16. Low Absorption	Dirty mold Wrong consistency Wrong plaster	Keeps molds clean Mix at higher consistency Use only high quality pottery plaster
17. Mildew	Not dry	Wash molds Dry molds thoroughly
18. Voids on surface	Trapped air in mixing Trapped air in pouring	See #10 on preceding page Pour plaster while still fluid Pour deepest part of cavity first Pour plaster so it flows over surface
19. Poor fit	Worn-out Poor design	Make new case molds Redesign

The following graph illustrates the importance of controlling use consistency (consistency is the parts water per hundred parts plaster by weight.)



*K-59 Pottery Plaster is one of several superior plasters for the ceramic industry produced by Georgia-Pacific.

Write us direct or ask our technical salesman for our Bulletin No. 205, "Industrial Plasters for Ceramic Industry" and Bulletin No. 5, "Mechanical Mixing of Plaster."

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