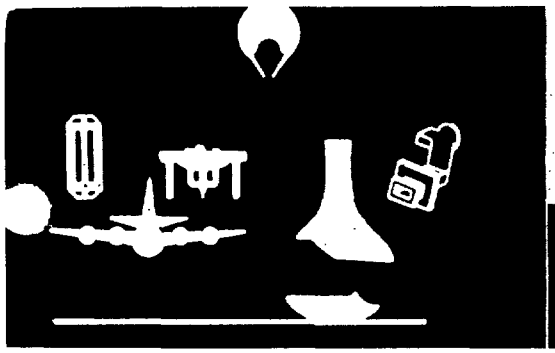


GEORGIA-PACIFIC
GYPSUM DIVISION

INDUSTRIAL PLASTER

BULLETIN NO. 3

FIELD TEST PROCEDURE – POTTERY PLASTER

OBJECT:
A method of testing setting time of pottery plaster at pouring consistency in the customer's shop.

EQUIPMENT:
1 - 6½ oz. Dixie Paper Cup (waxed)
1 - Wooden Tongue Depressor (5½ in. rounded end)
2 - Plastic Coffee Measures (Nat'l. Coffee Assn. standard measure)
1 - No. 1 Metal Paper Clip

PROCEDURE:
Place one full measure of water in the waxed paper cup. Place two measures, level full, of dry plaster in the water using dry measure. Record time at this moment and allow 1 minute soak period.
After soaking for 1 minute, stir the plaster and water with the wooden tongue depressor for a total of 160 revolutions.
As soon as slurry stiffens appreciably, periodically insert the paper clip, which has been extended to a length of approximately 2½ inches.
When considerable pressure from the index finger is required to force the clip to the bottom of the cup, material should be considered set and time is to be recorded.
The length of time from the moment plaster is added to the water until clip will go to the bottom of the cup only under considerable pressure is the setting time. This time should be within the range agreed upon by users of the material being tested. If not, the information gained by this test, along with a sample of the plaster in question, should be forwarded to the Tigard, Oregon Laboratory.

FIELD TEST PROCEDURE – DENSITE

OBJECT:
A method of testing setting time of Densite at pouring consistency in the customer's shop.

PLAINTIFF'S EXHIBIT
GP-676

EQUIPMENT:
1 - 6½ oz. Dixie Paper Cup (waxed)
1 - Wooden Tongue Depressor (5½ in. rounded end)
2 - Plastic Coffee Measures (Nat'l Coffee Assn. standard measure)
1 - No. 1 Metal Paper Clip

PROCEDURE:
For Densite Having a Pouring Consistency Range of 33 - 40:

Place one full measure of water in the waxed paper cup. Place two measures, one level full and one heaping of dry plaster in the water using dry measure. Record time at this moment and allow 1 minute soak period.
After soaking for 1 minute, stir the plaster and water with the wooden tongue depressor for a total of 160 revolutions.
As soon as slurry stiffens appreciably, periodically insert the paper clip, which has been extended to a length of approximately 2½ inches.
When considerable pressure from the index finger is required to force the clip to the bottom of the cup, the material should be considered set and time is to be recorded.

For Densite Having a Pouring Consistency Range of 41-47:

Place two measures, level full, of dry plaster in the water and test in the above manner.

The length of time from the moment plaster is added to the water until clip will go to the bottom of the cup only under considerable pressure is the setting time. This time should be within the range agreed upon by users of the material being tested. If not, the information gained by this test, along with a sample of the plaster in question, should be forwarded to the Tigard, Oregon Laboratory.

SGP 0026149

BESTWALL POTTERY PLASTERS ARE UNEQUALED IN PERFORMANCE AND PHYSICAL PROPERTIES

These quality plasters are designed to meet the most exacting demands of the ceramic industry—pottery plasters for working mold products; low expansion densities for models, block and case molds; specifically designed plaster for ram process dies. Trained and experienced Bestwall Gypsum technical representatives available to discuss any plaster problem you may have.

PHYSICAL PROPERTIES OF BESTWALL POTTERY PLASTERS

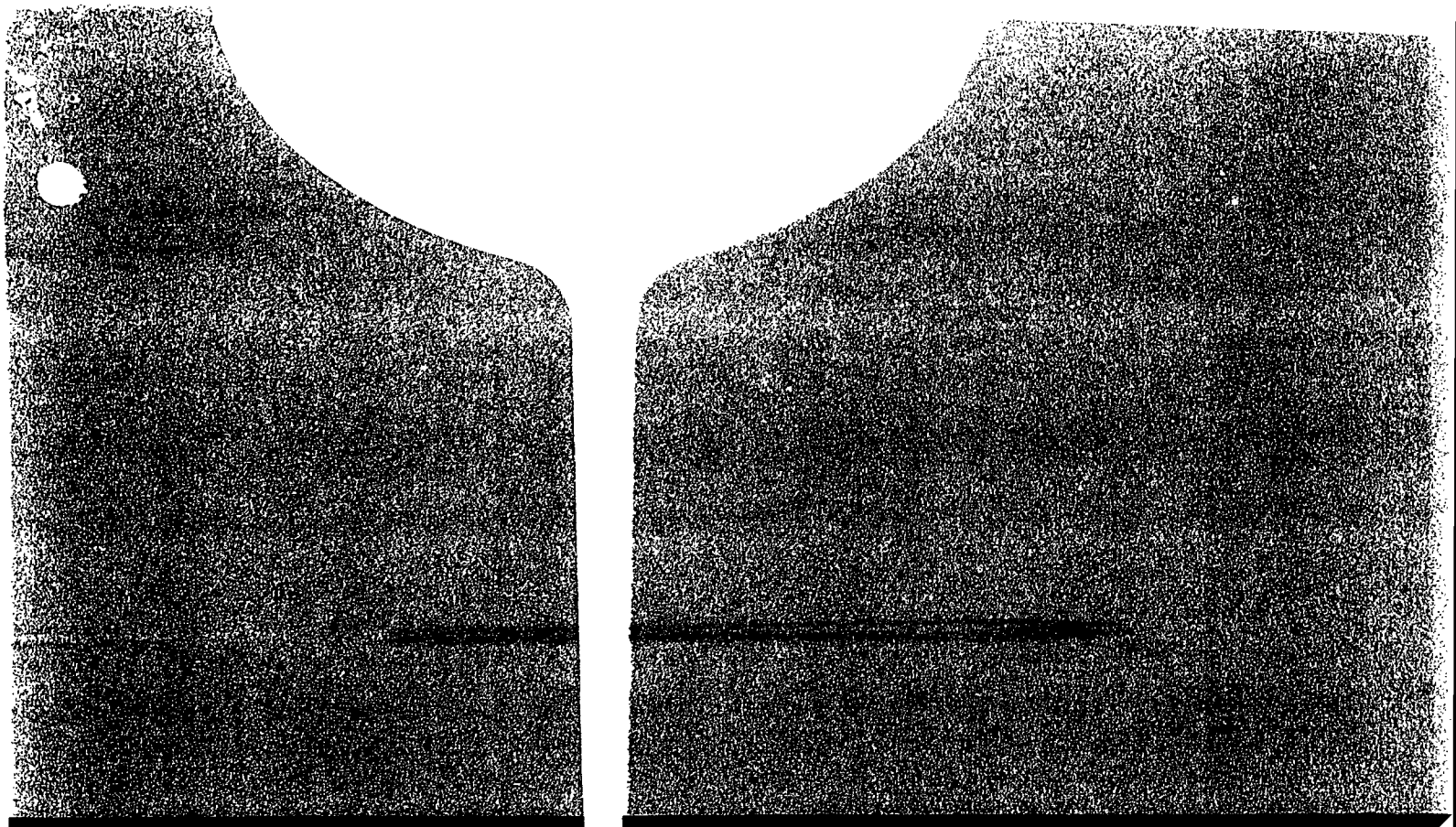
	Normal Consistency N.C.	Vicat Setting Time N.C.	% Setting Expansion N.C.	inch/inch Setting Expansion N.C.	Compressive Strength 1 Hr. After Set (PSI)	Compressive Strength Dry Set (PSI)	Monoton Hardness N.C.	
Industrial Molding L. E.	47-49	25-30 min.	.18% to .20%	.0018 to .0020	1600 to 1700	3000 to 3200	58 to 63	For Models
Pottery K-55	47-49	20-25 min.	.18% to .20%	.0018 to .0020	1600 to 1700	3000 to 3200	58 to 63	For Sanitary Ware Molds
Pottery K-58	45-46	25-30 min.	.18% to .195%	.0018 to .00195	2000 to 2100	3800 to 4200	50 to 55	For Sanitary Ware Molds where Thermal Shock Protection is desired
Pottery K-59	44-45	25-30 min.	.19% to .21%	.0019 to .0021	2000 to 2200	3900 to 4300	55 to 69	For Flat Ware, Dinner Ware, etc.
Pottery K-62	41-43	25-30 min.	.20% to .22%	.0020 to .0022	2300 to 2500	4200 to 4600	70 to 75	For Flat Ware, Dinner Ware, etc. where Thermal Shock Protection is desired
Model Densite	38-39	23-25 min.	.118% to .122%	.00118 to .00122	2600 to 2800	4800 to 5200	66 to 73	For general model work where extra strength and hardness is desired
Tooling Densite	33-34	25-35 min.	.050%	.0005		7000 to 8000	150	For Case Molds
Densite K-40	Use Consistency 40	18-23 min.	.090% to .120%	.0009 to .0012	4500 to 5000	8000 to 10000	140	For Ram Machine Molds

BESTWALL GYPSUM COMPANY • PAOLI, PA.

INDUSTRIAL BESTWALL GYPSUM PRODUCTS

Bulletin 205 (1965)

SGP 0026180



INDUSTRIAL GYPSUM

FOR

POTTERY PLASTER

GP

GEORGIA-PACIFIC

SGP 0026168

Georgia-Pacific high quality plasters are designed to meet the most exacting demands of the ceramic industry. Pottery plasters for models, block molds and working molds; low expansion Densite Gypsum Cements for case molds; and specifically designed Densite Gypsum Cement for Ram dies. All are unequaled in performance and physical properties.

A good general purpose pottery plaster designed for all types of potteries and sanitary ware plants. Ideally suited for those applications where high absorption is required.

A good general purpose pottery plaster formulated for those applications where thermal shock protection is required.

The industry standard. Designed for both casting and jiggering applications where long wearing properties are required.

A premium pottery plaster designed to provide the industry with the highest strength and most wear resistant plaster available. Ideal for the mechanical clay forming applications. Thermal shock protection is also provided.

A low expansion, high strength gypsum cement designed for block and case mold applications.

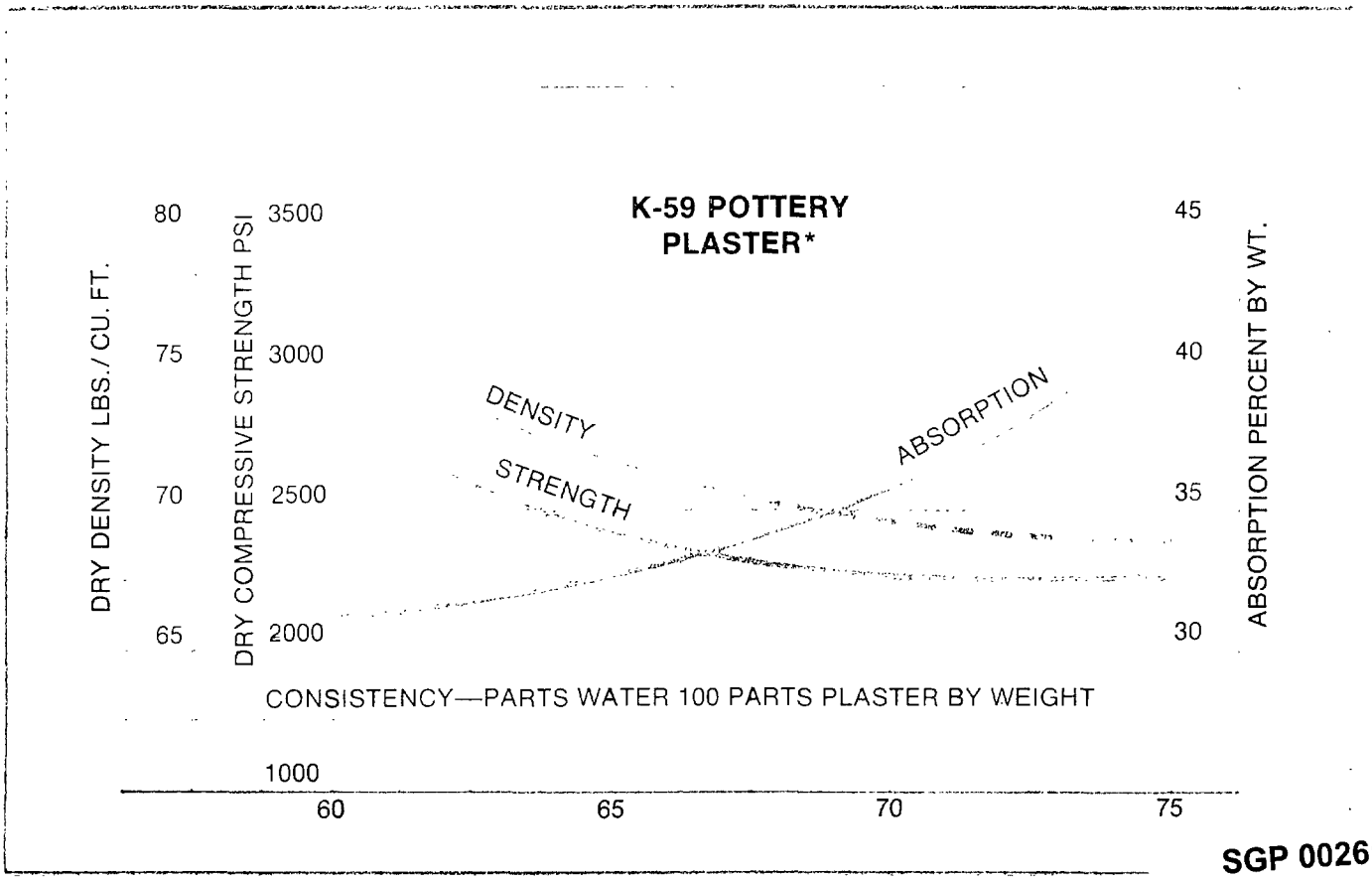
The ultimate in low expansion and high strength gypsum cements for block and case mold applications.

The finest high quality gypsum cement available for Ram Die applications.

1. Models
2. Block Molds
3. Casting Molds
4. Jigger Molds
5. Case Molds
6. Ram Dies

TYPE	USE CONSISTENCY parts water to 100 parts plaster	SETTING TIME min.	SETTING EXPANSION in./ in.	DRY COMPRESSIVE STRENGTH psi	HARDNESS*	COLOR	USES
K-55 POTTERY PLASTER	76	25-35	.0006	1700	16	White	1, 2, 3, 4
K-58 POTTERY PLASTER	72	25-35	.0015	1800	17	White	1, 2, 3, 4
K-59 POTTERY PLASTER	70	25-35	.0015	2000	18	White	1, 2, 3, 4
K-62 POTTERY PLASTER	68	25-35	.0016	2600	22	Blue	1, 2, 3, 4
DENSITE K-12	36	25-35	.0003	8000	75	Grey	2, 5
DENSITE K-33	38	25-35	.0003	7000	72	Green	2, 5
DENSITE K-40	40	25-35	.0006	6800	68	Grey	6

*Exp. of Monotron Hardness



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

Trained and experienced Georgia-Pacific technical representatives are available to discuss your specific applications and design a product to meet your individual requirements where necessary.



GEORGIA-PACIFIC

COMMONWEALTH BUILDING · PORTLAND OREGON 97204

SGP 0026171

GP-15-2/68-2.5