

SABINITE ACOUSTICAL PLASTER

An effective acoustical corrective and a permanent plaster finish are combined in this remarkable material, in which myriads of tiny passages absorb sound and stop echoes. In addition to correcting acoustics in churches, theaters and auditoriums, Sabinite quietens hospital rooms, offices, etc. It is much more economical than deadening felts or drapes. The improved formula is very easy working.

TYPES

Sabinite A—For general use on ceilings or above wainscots.

Sabinite B—For troweling to a smooth hard surface, readily cleanable on wainscots or wall surfaces exposed to abrasion.

Sabinite 38—Specially developed to resist moisture in natatoriums, shower rooms, laundries, etc.

COLORS

Both Sabinite A, B and No. 38 are furnished in white and four standard colors or tints: ecru, ivory, cream, buff. Special colors will be furnished on orders exceeding 5 tons. On small orders where special colors are required Sabinite may be integrally tinted on the job.

COVERING CAPACITY

One ton of Sabinite A or B applied in two coats, each $\frac{1}{4}$ -in. thick, will cover from 100 to 110 square yards. The average plasterer can apply 100 square yards of Sabinite A to full specifications in 11 hours.

To mix this material, including delivery to the mechanic, requires but 7 hours of labor.

A ton of Sabinite No. 38 covers from 60 to 75

HOW TO AVOID PLASTER TROUBLE

These directions apply to all Gypsum Cement Plasters, Wood Fiber Plasters, and Finishes. Their observance is just as important in securing first-class results and in making the mechanic's work easy as are the specifications themselves. Read the following eight simple, common-sense rules which will enable you to avoid trouble and get best possible results from your plaster.

Rule 1.—Keep Moisture From Plaster Before Mixing—Moisture causes plaster to set. Therefore, plaster should be stored in a dry place, and circulation of air through the ware-

house should be prevented. Do not pile plaster out of doors or on the bare ground or next to green walls. Do not allow plaster to stand dry mixed with sand.

Rule 2.—Have Lath Conditions Right.—Lath should be of good grade and should be properly spaced and nailed. Look out for dry lath. Wood lath are bound to swell when wet and if not swelled before plastering, they are likely to swell and buckle afterwards. Therefore, wet the lath. It is better to do it the day before and again about one hour before plastering. It is especially important to wet wood lath over doors and windows where the walls dry out very rapidly.

NOTE.—The best way to avoid lath trouble is to use Red Top Rocklath, the fireproof plaster base. You do not have to soak Rocklath, and it makes a solid, dense, wall that can never buckle. Brick walls have great suction; sprinkle them well before plastering.

Rule 3.—Water Quality.—Clean water is desirable where obtainable for all plastering. The set of U S G cement plaster is practically independent of water quality. Finishes, however, may be ruined if the gauging water contains soluble impurities.

Rule 4.—Sand Quality.—Sand meeting the requirements of A. S. T. M. for fineness is desirable. The setting time of U S G cement plaster is practically independent of sand quality. Sand should be free from frost.

Rule 5.—Keep Bat-Up Plaster Out of the Mix.—Set plaster causes quick set. Clean the bucket box and tools after each gauging. Do not wash tools in the gauging water. Do not mix one gauging with another. Do not retemper plaster after it has commenced to set. Throw it away—it is time and money saved.

Rule 6.—Mix Mixture as Needed.—Apply mortar immediately after mixing and do not mix more material than can be handled in about one hour.

Rule 7.—Mixing Methods.—The maximum strength and uniformity of sand and plaster mixtures depends on getting a perfect mix on the job. Uneven distribution of sand in plaster may result in weak overexposed spots due to incorrect mixing practice. Mixing should be continued until sand and plaster are thoroughly incorporated. Machine mixers should be kept clean and free from set plaster.

Rule 8.—Keep Green Walls From Freezing Until Bat Hard.—Frost will not injure plaster after setting occurs, and walls may be allowed to freeze dry. Whenever there is likelihood of frost in basement plaster, they should be warmed and dried thoroughly before finishing.

DRYOUTS

"Dryouts" occur when plaster coats dry before the plaster sets. U S G cement plaster, with ordinary protection from too rapid

drying, is practically proof against this condition, under wide variations in sanding conditions.

Where dryout occurs, it is indicated by soft, weak, chalky areas in the plaster. It is corrected by spraying the area affected with water to dampen it thoroughly, then keeping the wall damp until plaster sets. Dried out plaster retains its setting properties, and need never be removed unless buckling of wood lath has caused failure of keys.

Where rapid correction of dryouts is required, the surface may be wetted with a solution, made up by dissolving 6 ounces of zinc sulphate or alum in 12 quarts of water. Wet the area involved evenly, with this solution, then dampen thoroughly with spray or brush.

SWEAT-OUTS

Cause.—A "sweat-out" is the opposite condition to a dry-out. Walls in this condition are set but the water in excess of the amount needed to cause crystallization has not been expelled, thus causing a partial re-dissolving of the gypsum. Sweat-outs are more likely to be encountered in winter than in summer.

How to Detect.—This condition will be recognized when walls remain damp. Instead of being white and chalky, as in the case of a dry-out, the walls are dark in color and soft, and if the condition is permitted to continue uncorrected, the walls will have a damp, musty odor.

How to Prevent.—It is important to dry out the walls as quickly as possible after they are set. Plaster which has set but still remains damp over an extended period of time loses its strength and may result in a total loss. However, when a sweat-out condition is detected, immediate provision for proper heat and ventilation will preserve the remaining strength of the plaster.

If, after the walls are set, doors and windows are opened to permit a free circulation of air, and if an extremely cold weather proper artificial heat be also introduced into the building, together with proper ventilation, there will be no danger of sweat-outs.

Remedy.—After the plaster has set, open up doors and windows. In very cold weather also use artificial heat to dry out the walls.

FROZEN PLASTER

Cause.—Walls freezing before they are set.

How to Detect.—If the temperature inside the building, as at a freezing point before the plaster set, and if the walls remain damp and dark in color, the plaster is probably frozen.

How to Prevent.—In order to prevent freezing before the plaster has set, use artificial heat in the building with good ventilation. Frost will not injure plaster which has set if no excess moisture is present.

Remedy—Keep the building closed. Provide artificial heat and completely thaw out walls. When plaster has thawed and set, provide ventilation and heat to remove moisture and prevent a sweat-out.

Never apply a finish coat over a base coat containing frost.

TOO SLOW SETTING

Cause—The setting time of U S G cement plaster is adjusted to meet the requirements of the locality into which it is shipped. If, because of special conditions this setting time is too slow, it may be adjusted and dealer should be notified so that this adjustment can be made.

How to Detect—When plaster fails to set in a reasonable time after mixing (1½ to 6 hours, depending on locality) it is slow setting. U S G cement plasters set from the lath out, the surface setting evenly and uniformly, so that surface is last to harden. Surface softness, therefore, should not be confused with slow setting.

Before definitely concluding that a plaster is slow setting, it is well to make a simple test as follows: mix dry a sample of sanded plaster on a clean hawk or mortar board. Put about a pint (two tumblerfuls) of the mixture in the center of the hawk or mortar board. Now, with the handle of a pointing trowel make a hole in the center of the dry-mixed material and work it into a ring about 5 to 8 in. in diameter. Into this ring, pour clean water, then fold the plaster into the water slowly and mix thoroughly. Place the mixture on a well cleaned wet board, or better still, on a piece of glass, or the bottom of an old plate or saucer. Take the time of set. The time will vary from an hour and a half in some parts of the South, to four hours or more in other sections.

Remedies—Below are listed five things which may be done to make plaster set more quickly. None of these remedies will have any injurious effect on the plaster.

- (1) Send to the United States Gypsum Company for U S G Accelerator. Add 4 to 6 oz. (about a handful) to each sack of plaster.
- (2) Crush some plaster droppings, screen through a fly screen, and use about a quart of this set plaster to each sack of plaster.
- (3) Add about a quart of hydrated lime to each sack.
- (4) Add about a quart of Portland cement to each sack. Caution. The use of lime or Portland cement to accelerate the set is not recommended over Rocklath, Insulating Lath, or any sheet type of lath.
- (5) Put 15 lbs. of any kind of unretarded plaster (plaster of paris, moulding plaster, etc.) into a barrel of water about one hour before it is desired to mix the plaster. Use this water, thoroughly stirred, for mixing.

TOO QUICK SET

Causes—The setting time of U S G cement plaster is adjusted to meet the requirements of the locality into which it is shipped, and is practically independent of water supply and sand quality. Quick set may be due to: (1) Use of water in which tools have been washed for mixing; (2) Presence of set plaster in the mix; (3) Mixing more material than will be used up in an hour.

How to Detect—Material which sets in the box or the mixer, or hardens on the wall before it can be straightened, is quick set. If there is any doubt as to the condition, mix a little as described under—"Too Slow Set—How to Detect."

How to Prevent—Most quick-set troubles can be prevented by correcting local conditions described under "Causes of Quick Set."

Remedies—Correct local conditions. See that tools and mixing box are free from set plaster. See that mixing water does not contain set plaster. Do not permit plaster and sand to stand dry mixed before adding the water. Do not mix more material than can be used up in an hour.

If an investigation of local conditions does not suggest a remedy, obtain from the United States Gypsum Company some U S G Retarder. Use this by stirring up the desired amount in a pail containing part of the mixing water, to get a good solution free from lumps. Start with a fair handful (1 to 2 ounces) per bag increasing or decreasing the amount as necessary to obtain desired setting time.

If there is not time to procure U S G Retarder the set may be retarded by the addition of glue water. Pulverized glue in the proportions of 1 lb. of glue to 5 gallons of water should be mixed, and about a quart pail full of this solution used with the gauging water for each 100-lb. sack of plaster. U S G Retarder is much better than glue.

NOTE: The use of such retarders as cream of tartar or tartaric acid is not recommended either for base or finish coat plasters.

AUTOMATIC WALL MEASURE- MENT TABLES

By the wall measurement tables which follow, you can instantly compute the correct number of yards in any size room.

HOW TO USE THE TABLES

Example: To obtain the number of square yards in a room 15x15x9. Turn to the table giving the measurement of rooms with 9-foot ceilings; follow down the column of figures on the left until you come to 15, then follow the figures to the right until you come to the figures directly under the figure 15, at the top of the page; the answer is 85 square yards. When the hall-foot comes in the dimensions of a room, both ways, take the next largest number on one side. When it comes on one side only add one yard and it will be close.

NUMBER OF SQUARE YARDS AND FEET IN ROOMS WITH 7-FOOT CEILINGS

	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
3	10.3	12.2	14.1	16.0	17.8	19.7	21.6	23.5	25.4	27.3	29.2	31.1	33.0	34.8	36.7	38.6	40.5	42.4	44.3	46.2
4	12.2	14.2	16.2	18.2	20.2	22.2	24.2	26.2	28.2	30.2	32.2	34.2	36.2	38.2	40.2	42.2	44.2	46.2	48.2	50.2
5	14.1	16.2	18.3	20.4	22.5	24.6	26.7	28.8	31.0	33.1	35.2	37.3	39.4	41.5	43.6	45.7	47.8	50.0	52.1	54.2
6	16.0	18.2	20.4	22.6	24.8	27.1	29.3	31.5	33.7	36.0	38.2	40.4	42.6	44.8	47.1	49.3	51.5	53.7	56.0	58.2
7	17.8	20.2	22.5	24.8	27.2	29.5	31.8	34.2	36.5	38.8	41.2	43.5	45.8	48.2	50.5	52.8	55.2	57.5	59.8	62.2
8	19.7	22.2	24.6	27.1	29.5	32.0	34.4	36.8	39.3	41.7	44.2	46.6	49.1	51.5	54.0	56.4	58.8	61.3	63.7	66.2
9	21.6	24.2	26.7	29.3	31.8	34.4	37.0	39.5	42.1	44.6	47.2	49.7	52.3	54.8	57.4	60.0	62.5	65.1	67.6	70.2
10	23.5	26.2	28.8	31.5	34.2	36.8	39.5	42.2	44.8	47.5	50.2	52.8	55.5	58.2	60.8	63.5	66.2	68.8	71.5	74.2
11	25.4	28.2	31.0	33.7	36.5	39.3	42.1	44.8	47.6	50.4	53.2	56.0	58.7	61.5	64.3	67.1	69.8	72.6	75.4	78.2
12	27.3	30.2	33.1	36.0	38.9	41.7	44.6	47.5	50.4	53.3	56.2	59.1	62.0	64.8	67.7	70.6	73.5	76.4	79.3	82.2
13	29.2	32.2	35.2	38.2	41.2	44.2	47.2	50.2	53.2	56.2	59.2	62.2	65.2	68.2	71.2	74.2	77.2	80.2	83.2	86.2
14	31.1	34.2	37.3	40.4	43.5	46.6	49.7	52.8	55.9	59.1	62.2	65.3	68.4	71.5	74.6	77.7	80.8	84.0	87.1	90.2
15	33.0	36.2	39.4	42.6	45.8	49.1	52.3	55.5	58.7	62.0	65.2	68.4	71.6	74.8	78.1	81.3	84.5	87.7	91.0	94.2
16	34.8	38.2	41.5	44.8	48.2	51.5	54.8	58.2	61.5	64.8	68.2	71.5	74.8	78.2	81.5	84.8	88.2	91.5	94.8	98.2
17	36.7	40.2	43.6	47.1	50.5	54.0	57.4	60.8	64.3	67.7	71.2	74.6	78.1	81.5	85.0	88.4	91.8	95.3	98.7	102.2
18	38.6	42.2	45.7	49.3	52.8	56.4	60.0	63.5	67.1	70.6	74.2	77.7	81.3	84.8	88.4	92.0	95.5	99.1	102.6	106.2
19	40.5	44.2	47.8	51.5	55.2	58.8	62.5	66.2	69.8	73.5	77.2	80.8	84.5	88.2	91.8	95.5	99.2	102.8	106.4	110.2
20	42.4	46.2	50.0	53.7	57.5	61.3	65.1	68.9	72.6	76.4	80.2	84.0	87.7	91.5	95.3	99.1	102.8	106.6	110.4	114.0
21	44.3	48.2	52.1	56.0	59.8	63.7	67.6	71.5	75.4	79.3	83.2	87.1	91.0	94.8	98.7	102.6	106.5	110.4	114.3	118.2
22	46.2	50.2	54.2	58.2	62.2	66.2	70.2	74.2	78.2	82.2	86.2	90.2	94.2	98.2	102.2	106.2	110.2	114.2	118.2	122.2
23	48.0	52.2	56.3	60.4	64.5	68.6	72.7	76.8	81.0	85.1	89.2	93.3	97.4	101.5	105.6	109.7	113.8	117.9	122.1	126.2
24	50.0	54.2	58.4	62.6	66.8	71.1	75.3	79.5	83.7	88.0	92.2	96.4	100.6	104.8	109.1	113.3	117.5	121.7	126.0	130.2

The amount indicated includes side walls and ceilings.

NUMBER OF SQUARE YARDS AND FEET IN ROOMS WITH 7-6 FOOT CEILINGS

	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
3	11.0	13.0	15.0	17.0	19.0	21.0	23.0	25.0	27.0	29.0	31.0	33.0	35.0	37.0	39.0	41.0	43.0	45.0	47.0	49.0
4	13.0	15.1	17.2	19.3	21.4	23.5	25.6	27.7	29.8	32.0	34.1	36.2	38.3	40.4	42.5	44.6	46.7	48.8	51.0	53.1
5	15.0	17.2	19.4	21.6	23.8	26.1	28.3	30.5	32.7	35.0	37.2	39.4	41.6	43.8	46.1	48.3	50.5	52.7	55.0	57.2
6	17.0	19.3	21.6	24.0	26.3	28.6	31.0	33.3	35.6	38.0	40.3	42.6	45.0	47.3	49.6	52.0	54.3	56.6	59.0	61.3
7	19.0	21.4	23.8	26.3	28.7	31.2	33.6	36.1	38.5	41.0	43.4	45.8	48.3	50.7	53.2	55.6	58.1	60.5	63.0	65.4
8	21.0	23.5	26.1	28.6	31.2	33.7	36.3	38.8	41.4	44.0	46.5	49.1	51.6	54.2	56.7	59.3	61.8	64.4	67.0	69.5
9	23.0	25.6	28.3	31.0	33.6	36.3	39.0	41.6	44.3	47.0	49.6	52.3	55.0	57.6	60.3	63.0	65.6	68.3	71.0	73.6
10	25.0	27.7	30.5	33.3	36.1	38.8	41.6	44.4	47.2	50.0	52.7	55.5	58.3	61.1	63.8	66.6	69.4	72.2	75.0	77.7
11	27.0	29.8	32.7	35.6	38.5	41.4	44.3	47.3	50.1	53.0	55.8	58.7	61.6	64.5	67.4	70.3	73.2	76.1	79.0	81.8
12	29.0	32.0	35.0	38.0	41.0	44.0	47.0	50.0	53.0	56.0	59.0	62.0	65.0	68.0	71.0	74.0	77.0	80.0	83.0	86.0
13	31.0	34.1	37.2	40.3	43.4	46.5	49.6	52.7	55.8	59.0	62.1	65.2	68.3	71.4	74.5	77.6	80.7	83.8	87.0	90.1
14	33.0	36.2	39.4	42.6	45.8	49.1	52.3	55.5	58.7	62.0	65.2	68.4	71.6	74.8	78.1	81.3	84.5	87.7	91.0	94.2
15	35.0	38.3	41.6	45.0	48.3	51.6	55.0	58.3	61.6	65.0	68.3	71.6	75.0	78.3	81.6	85.0	88.3	91.6	95.0	98.3
16	37.0	40.4	43.8	47.3	50.7	54.2	57.6	61.1	64.5	68.0	71.4	74.8	78.3	81.7	85.2	88.6	92.1	95.5	99.0	102.4
17	39.0	42.5	46.1	49.6	53.2	56.7	60.3	63.8	67.4	71.0	74.5	78.1	81.6	85.2	88.7	92.3	95.8	99.4	103.0	106.5
18	41.0	44.6	48.3	52.0	55.6	59.3	63.0	66.6	70.3	74.0	77.6	81.3	85.0	88.6	92.3	96.0	99.6	103.3	107.0	110.6
19	43.0	46.7	50.5	54.3	58.1	61.8	65.6	69.4	73.2	77.0	80.7	84.5	88.3	92.1	95.8	99.6	103.4	107.2	111.0	114.7
20	45.0	48.8	52.7	56.6	60.5	64.4	68.3	72.2	76.1	80.0	83.8	87.7	91.6	95.5	99.4	103.3	107.2	111.1	115.0	118.8
21	47.0	51.0	55.0	59.0	63.0	67.0	71.0	75.0	79.0	83.0	87.0	91.0	95.0	99.0	103.0	107.0	111.0	115.0	119.0	123.0
22	49.0	53.1	57.2	61.3	65.4	69.5	73.6	77.7	81.8	86.0	90.1	94.2	98.3	102.4	106.5	110.6	114.7	118.8	123.0	127.0
23	51.0	55.2	59.4	63.6	67.8	72.1	76.3	80.5	84.7	89.0	93.2	97.4	101.6	105.8	110.1	114.3	118.5	122.7	127.0	131.2
24	53.0	57.3	61.6	66.0	70.3	74.6	79.0	83.3	87.6	92.0	96.3	100.6	105.0	109.3	113.6	118.0	122.3	126.6	131.0	135.3

The amount indicated includes side walls and ceilings.

NUMBER OF SQUARE YARDS AND FEET IN ROOMS WITH 8-FOOT CEILINGS

	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
3	11.6	13.7	15.8	18.0	20.1	22.2	24.3	26.4	28.5	30.6	32.7	34.8	37.0	39.1	41.2	43.3	45.4	47.5	49.6	51.7
4	13.7	16.0	18.2	20.4	22.6	24.8	27.1	29.3	31.5	33.7	36.0	38.2	40.4	42.6	44.8	47.1	49.3	51.5	53.7	56.0
5	15.8	18.2	20.5	22.8	25.2	27.5	29.8	32.2	34.5	36.8	39.2	41.5	43.8	46.2	48.5	50.8	53.2	55.5	57.8	60.2
6	18.0	20.4	22.8	25.3	27.7	30.2	32.6	35.1	37.5	40.0	42.4	44.8	47.3	49.7	52.2	54.6	57.1	59.5	62.0	64.4
7	20.1	22.6	25.2	27.7	30.3	32.8	35.4	38.0	40.5	43.1	45.6	48.2	50.7	53.3	55.8	58.4	61.0	63.5	66.1	68.6
8	22.2	24.8	27.5	30.2	32.8	35.5	38.2	40.8	43.2	45.8	48.3	51.0	53.6	56.2	58.8	61.4	64.0	66.6	69.2	71.8
9	24.3	27.1	29.9	32.8	35.4	38.2	41.0	43.7	46.5	49.3	52.1	54.8	57.6	60.4	63.2	66.0	68.7	71.5	74.3	77.1
10	26.4	29.3	32.2	35.1	38.0	40.8	43.7	46.6	49.5	52.4	55.3	58.2	61.1	64.0	66.8	69.7	72.6	75.5	78.4	81.3
11	28.5	31.5	34.5	37.5	40.5	43.5	46.5	49.5	52.5	55.5	58.5	61.5	64.5	67.5	70.5	73.5	76.5	79.5	82.5	85.5
12	30.6	33.7	36.8	40.0	43.1	46.2	49.3	52.4	55.5	58.6	61.7	64.8	68.0	71.1	74.2	77.3	80.4	83.5	86.6	89.7
13	32.7	36.0	39.2	42.4	45.6	48.8	52.1	55.3	58.5	61.7	65.0	68.2	71.4	74.6	77.8	81.1	84.3	87.5	90.7	94.0
14	34.8	38.2	41.5	44.8	48.2	51.5	54.8	58.2	61.5	64.8	68.2	71.5	74.8	78.2	81.5	84.8	88.2	91.5	94.8	98.2
15	37.0	40.4	43.8	47.3	50.7	54.2	57.6	61.1	64.5	68.0	71.4	74.8	78.3	81.7	85.2	88.6	92.1	95.5	99.0	102.4
16	39.1	42.6	46.2	49.7	53.3	56.8	60.4	64.0	67.5	71.1	74.6	78.2	81.7	85.3	88.8	92.4	96.0	99.5	103.1	106.6
17	41.2	44.8	48.5	52.2	55.8	59.5	63.2	66.8	70.5	74.2	77.8	81.5	85.2	88.8	92.5	96.2	99.8	103.5	107.2	110.8
18	43.3	47.1	50.8	54.6	58.4	62.2	66.0	69.7	73.5	77.3	81.1	84.8	88.6	92.4	96.2	100.0	103.7	107.5	111.3	115.1
19	45.4	49.3	53.2	57.1	61.0	64.8	68.7	72.6	76.5	80.4	84.3	88.2	92.1	96.0	99.8	103.7	107.6	111.5	115.4	119.3
20	47.5	51.5	55.5	59.5	63.5	67.5	71.5	75.5	79.5	83.5	87.5	91.5	95.5	99.5	103.5	107.5	111.5	115.5	119.5	123.5
21	49.6	53.7	57.8	62.0	66.1	70.2	74.3	78.4	82.5	86.6	90.7	94.8	99.0	103.1	107.2	111.3	115.4	119.5	123.6	127.7
22	51.7	56.0	60.2	64.4	68.6	72.8	77.1	81.3	85.5	89.7	94.0	98.2	102.4	106.6	110.8	115.1	119.3	123.5	127.7	132.0
23	53.8	58.2	62.5	66.8	71.2	75.5	79.8	84.2	88.5	92.8	97.2	101.5	105.8	110.2	114.5	118.8	123.2	127.5	131.8	136.2
24	56.0	60.4	64.8	69.3	73.7	78.2	82.6	87.1	91.5	96.0	100.4	104.8	109.3	113.7	118.2	122.6	127.1	131.5	136.0	140.4

The amount indicated includes side walls and ceilings.