

A.I.A. File 21-A  
39-B

## TECHNICAL INFORMATION

# USG\* GYPSUM PLASTERS —

BASECOAT PLASTERS

FINISHING LIMES

ACOUSTICAL PLASTERS

FIREPROOFING PLASTERS

UNITED STATES GYPSUM

1964

\*T.M. Reg. U.S. Pat. Off.



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## BASECOAT PLASTERS

any additional information regarding (fire, sound, etc.) test data in this publication is to direct inquiries to:  
**UNITED STATES GYPSUM**

### Application

Three-coat work is mandatory on all metal lath and edge supported gypsum lath on ceiling construction.

Three-coat work is desirable on all gypsum lath.

Two-coat work is acceptable on unperforated gypsum lath and masonry plaster bases.

The UNITED STATES GYPSUM COMPANY maintains a qualified staff of Technical Consultants, Architect Service Representatives, conveniently located in most major markets to assist in resolving specific problems.

## BASECOAT PLASTERS

### DESCRIPTION

The base of all gypsum plasters is gypsum rock, hydrous calcium sulfate, which has a water content of about 20% in chemical combination. In its manufacture, chemically combined water is removed from the gypsum rock by means of a controlled calcination procedure. Then as water is added at the job, the material crystallizes (sets), reverting to its original chemical composition.

Gypsum Plasters are specifically formulated to control setting time and other important characteristics. This depends upon the intended method of application, the climatic conditions of the area in which they will be used, and their intended use.

USG Basecoat Plasters can be applied by using either hand or machine methods, on gypsum or metal lath; gypsum, clay, or concrete tile; concrete or cinder blocks; brick, or other approved plaster bases.

### FUNCTION & UTILITY

Basecoat plasters provide a plastic working material which will conform to most designs and provide the ultimate in durable walls and ceilings.

**Fire-Protection**—Gypsum plaster, properly proportioned with approved aggregates, and used in conjunction with specific plaster bases, provides excellent fire-protection.

(See pages 12 & 13 of AIA File 20 for "Fire Test Data")

**Strength**—There are significant differences in the strengths of gypsum basecoat plasters. The strength of a gypsum basecoat plaster is dependent on four factors:

1. **Water-Cement Ratio**—The water required to produce a plastic mix depends on the amount and type of aggregate. (See technical data page 3)
2. **Control of Set**—REN TOP Gypsum Plasters are formulated for use with market aggregates, climatic conditions, and job conditions. The quicker a gypsum plaster sets, the stronger the basecoat.
3. **Time of Application**—Plasters should be applied within one hour after mixing to assure desired strength and proper bond.
4. **Ventilation and Drying** are important adjuncts to producing a strong basecoat once the gypsum plaster has set. Not only must the plaster be dried, but the water must be removed from the building.

**Sound Isolation**—Gypsum plaster in combination with lathing or construction systems offers sound transmission loss characteristics suitable for most requirements. Sanded basecoat plasters provide the optimum results.

### Finish Coats

#### Float Finishes

#### 1. ORIENTAL Interior

**NOTE:** Float Finish 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 are the only finish recommended for use over a perlited basecoat. Finish 1 (smooth trowel) provide high abrasion resistance and because of their hardness must be used over a comparably hard basecoat.

BASECOAT PLASTERS—Cont'd  
**FINISH COAT PLASTERS**

## FINISH COAT PLASTERS

### DESCRIPTION

There are several types of gypsum finish plasters, some are used with the addition of water only, while others are a blend of gypsum, lime and water, or gypsum, lime, sand and water.

Since the finish coat must be compatible with the basecoat care must be taken in the selection of the finish coat materials in relationship with the characteristics of the basecoat.

There are three general classifications of finishing materials:

1. Prepared finishes
2. Smooth trowel finishes
3. Sand float finishes

for machine application. Provides excellent hardness and a very durable finish.

### FUNCTION & UTILITY

The finish coat serves as a leveling coat, as a base for decoration and provides the required resistance to abrasion.

Gauging plasters impart an early hardness and strength, minimizing the shrinkage characteristic of lime.

## FINISH COAT MATERIALS

A chart for the selection of finish coat materials is provided on page 6. The following materials are included:

**ORIENTAL® Interior Stucco**—A white finish plaster for a sand float or textured finish. May also be ordered formulated

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(1)T.M. of Plastering Development Center, Inc.



## FINISH COAT PLASTERS

### APPLICATION DATA

| DESCRIPTION                  | FINISH<br>TEXTURE                | PHYSICAL<br>PROPERTIES            | PROPORTION BY<br>DRY WEIGHT—<br>GAUGING TO LIME | WORKABILITY<br>FACTOR | COMMENTS                                                               | COST<br>INDEX |
|------------------------------|----------------------------------|-----------------------------------|-------------------------------------------------|-----------------------|------------------------------------------------------------------------|---------------|
| ORIENTAL®<br>Interior Stucco | White Float or<br>Texture Finish | Hard and<br>Resistant to Abrasion | Neat                                            | 1                     | Available in white. Mill control of aggregate, size and proportioning. | 160           |

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## SPECIFICATIONS

**V. MATERIALS**—Plaster and all cementitious material shall be stored under cover, up off the ground or floor, and kept dry until ready for use.

f. Prepared Finish shall be **ORIENTAL Interior White Finish** as manufactured by the **UNITED STATES GYPSUM COMPANY**.

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**XI. PROPORTIONS OF FINISH COATS**

- h. **ORIENTAL Interior White Finish** shall be mixed with clean water only to proper application consistency.

**XII. APPLICATION OF FINISH COATS**

- a. Trowel Finish coats shall be scratched in thoroughly and immediately doubled back to fill out to a smooth, dense

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## SPECIFICATIONS | USG GYPSUM PLASTERS

surface for decoration free of surface blemishes and irregularities. Thickness shall be no more than  $\frac{1}{8}$  inch. Keenes Cement Finishes shall be troweled until the material sets.

- b. Float Finish coats shall be scratched in thoroughly and immediately doubled back to a true, even surface. Float using a (shingle), (cork), (wood), (carpet) or (rubber) float to bring aggregate to the surface to produce a finish of uniform texture free of slick spots, cat faces, and other blemishes. Use water sparingly in natural color, and no water shall be used on colored finishes.



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In Canada: CANADIAN GYPSUM CO., LTD., TORONTO—OTTAWA—MONTREAL—QUEBEC

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# USG GYPSUM PLASTERS

## PREPARED FINISHES

These finishes are pre-mixed materials, which require only the addition of water on the job. Their uniformity and the particular characteristics of each product give them outstanding advantages over similar job-mixed finishes.

**ORIENTAL Exterior Stucco**—for sand float or textured finishes over exterior Portland cement lime base-coats only. It may also be machine applied. It is available in the following colors:

|                |               |               |
|----------------|---------------|---------------|
| White          | Stone Gray    | Cascade Green |
| Pewter Gray    | Copper Rose   | Pueblo Tan    |
| Eggshell Ivory | Alamo Buff    | Indian Coral  |
| Suntan         | Mission Cream | Rancho Brown  |

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