

# VENEER PLASTER SYSTEMS

## MANUFACTURER

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## DESCRIPTION

Veneer Plaster Systems are integrated systems consisting of a 4'-wide gypsum plastering base called Kal-Kore with a special, highly absorptive paper surface that is covered with thinly troweled, special purpose plasters.

Three types of Veneer Plaster Systems are available:

**Gold Bond BRAND Uni-Kal:** a one-coat plaster system.

**Gold Bond BRAND X-KALibur:** a one-coat, extended set time plaster system.

**Gold Bond BRAND Kal-Kote:** a two-coat plaster system.

Gold Bond BRAND Kal-Kore Plaster Base is erected in the same manner for each system. Kal-Kore is a tapered edge gypsum plastering base with a blue absorptive face paper surface designed to permit rapid trowel application and strong bond of Kal-Kote Basecoat, Uni-Kal and X-KALibur one-coat plasters.

## BASIC USES

Veneer Plaster Systems may be specified for virtually all types of partition and ceiling constructions, including wood or steel framing, or furring and masonry. For both residential and commercial buildings, either type of veneer plaster system produces a wall more nail-pop resistant than conventional lath and plaster.

## ADVANTAGES

- Rapid installation reduces overall construction time.

- Appearance and surface of conventional plaster at lower cost than regular plastering.
- High resistance to cracking, nail-popping, impact and abrasion failure.
- Veneer Plaster Systems provide an excellent base over which paints or other finishes should be applied.
- Mill-mixed plaster components help assure uniform installation performance and quality.

**One-Coat Systems:** Uni-Kal and X-KALibur

- Requires only one plastering material on the job.
- Slightly lower in-place cost than two-coat system.
- Can be applied directly to new concrete block.

**Two-Coat System:** Kal-Kote

- Kal-Kote System may be used for plaster-embedded electric radiant heating cable systems.
- Same application techniques as for conventional plaster.
- Greater crack resistance than one-coat systems.
- Can be applied directly to new concrete block.

## LIMITATIONS

- Not recommended for exterior use.
- Plaster must be kept dry until used. It must be stored off the ground, under cover and away from moisture sources.
- Not to be used in interior areas where directly exposed to free water or severe moisture conditions.
- Not to be used in areas subjected to temperatures exceeding 125°F (52°C) for extended periods.

## INSTALLATION

### APPLICABLE STANDARDS AND REFERENCES

ASTM C 843  
ASTM C 844  
National Gypsum Co. *Gypsum Construction Guide*

### RECOMMENDATIONS

Installation of Veneer Plaster should be consistent with methods described in the noted standards and references and as indicated below.

When Uni-Kal or X-KALibur are applied in a thin coat 3/32" thick and troweled to a smooth finish, they provide a durable, abrasion-resistant

surface for further decoration. They may also be worked to a variety of textured finishes, by adding sand if desired.

Veneer Plasters are formulated to provide a working time of approximately 1 hour. Mix only that quantity of plaster which can be applied and finished within 1 hour.

- Set times will be affected by job site conditions such as minerals in the water, cleanliness of the tools and by the addition of various materials used to adjust the working characteristics of the plaster. National Gypsum only recommends commercial accelerators or retarders manufactured for those specific purposes.
- Veneer Plasters are designed for trowel application and are not suitable for conveyance or application by conventional plastering machines.
- Compared to conventional plasters, Veneer Plaster Systems are more subject to beading (ridging) and cracking at the joints under rapid drying conditions such as those caused by low humidity, high temperature and/or high draft exposure.

(Continued next page)

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_ Date \_\_\_\_\_

Submittal Approvals: (Stamps or Signatures)

- A bonding agent must be applied to gypsum board, monolithic concrete, portland cement plaster and old gypsum plaster surfaces prior to application of veneer plaster systems.
- When Uni-Kal or X-KALibur will be applied, do not install Kal-Kore too far in advance of plastering since the board can be adversely affected if face of Kal-Kore has become faded from light. If Kal-Kore has become faded, apply Kal-Kote basecoat or a bonding agent to obtain good bond.
- The use of any gypsum board, face or back surface other than Kal-Kore will adversely affect the bond between plaster and base board.
- Veneer Plaster Systems are to be installed with maximum deflection criteria of L/240.
- Kal-Kore plaster bases must be stored off the ground and under cover. Sufficient risers must be used to assure support for the entire length of the plaster base to prevent sagging.

#### TREATMENT OF KAL-KORE JOINTS FOR VENEER PLASTER SYSTEMS

Pre-treat all joints and fasteners in Kal-Kote and Uni-Kal Plaster Systems with Kal-Kote Basecoat Plaster, Uni-Kal, X-KALibur or Quick Set Joint Compound. Low humidity, high temperatures and rapidly circulating air can cause cracking of plaster and joint beading when Kal-Kore is applied to metal framing. To minimize this during these conditions, joints may be pre-treated using paper tape.

Three acceptable methods of treating Kal-Kore joints are:

#### Drywall Paper Tape Treatment Method

1. Trowel Kal-Kote Basecoat Plaster, Uni-Kal or X-KALibur over joint line filling the channel formed by the tapered edges of the Kal-Kore board in an even fashion.

2. Center drywall paper tape over the joint line and embed the tape into the soft plaster using a trowel and level the joint. Tape the full length of the joint.

3. Allow the treated joints to set prior to general plaster application.

#### Quick Set Compound and Paper Tape Treatment Method

1. Mix Quick Set Compound per instructions on package. Do not contaminate the compound with other materials, dirty water or previous mixes. Do not retemper.
2. Apply the Quick Set Compound to the joint by hand or machine tool. The drywall paper tape must be centered over the joint line and embedded into the soft compound. Do not over-trowel to a slick surface. Leave the surface rough to provide mechanical keying of the plaster.
3. Allow the treated joints to set and dry prior to general plastering.

#### Kal-Mesh Treatment Method

Do not use self-adhering mesh.

1. Center and secure Kal-Mesh over all joints and interior angles with 1/4" or 5/16" staples.
2. Position staples a maximum of 24" apart as follows:
  - A. Joints: at alternate edges for the run from end to end and directly opposite one another at either end.
  - B. Angles: along ceiling edge only for wall-to-ceiling angles. Along one edge for wall-to-wall angles.
3. After the first staples are placed at the end of a joint or angle, pull unstapled Kal-Mesh as stapling proceeds to assure that it will lie flat against the Kal-Kore.
4. Pre-treat all joints and Kal-Beads with Kal-Kote, Uni-Kal or X-KALibur Plaster. Tightly trowel over joint line in both directions to prevent voids, feathering to a maximum width of about 6".
5. Allow the treated joints to set prior to general plaster application.

#### APPLICATION OF VENEER PLASTER OVER KAL-KORE PLASTER BASE

##### Kal-Kote Application Over Kal-Kore

###### Basecoat Over Kal-Kore

1. Tightly scratch material into previously treated joints and cornerbeads, then immediately scratch-in tightly over the wall and/or ceiling area.
2. Double back over the area just troweled with material from the same batch, bringing total thickness up to 1/16" minimum.
3. When plaster has "taken up," eliminate excessive trowel marks and fill all surface voids and imperfections to obtain a reasonably uniform surface. Do not over-trowel to a slick surface. Roughen the unset basecoat plaster surface with a serrated darby or lightly wire rake to provide mechanical keying for the finish plaster when necessary.

###### Smooth Finish Over Basecoat

1. Apply only over properly prepared Kal-Kote basecoat. Scratch-in tightly, then double back with material from the same batch immediately to create a uniform coat not exceeding 1/16" in average thickness.
2. Remove trowel marks, "cat faces" and other major surface imperfections by "drawing up" or "laying down" the surface with light trowel pressure when plaster has stiffened. Use water sparingly if needed, but do not over-trowel or over-water because this aggravates any normal tendency for blistering when working over such low suction bases. Such blistering will be eliminated by the final water-troweling operations.
3. Water-trowel to densify and polish the surface to the desired degree when plaster has set, eliminating any blistering if present. Never use a felt "blister brush" as a substitute for water troweling.
4. Uni-Kal and X-KALibur Plaster may be substituted for Kal-Kote Smooth Finish.

###### Texture Finish Over Basecoat

1. Apply only over properly prepared Kal-Kote basecoat. Scratch-in tightly, then double back with material from the same batch immediately to create a uniform coat not exceeding 1/16" in average thickness.
2. When plaster has stiffened, float its surface to any desired finish. Do not float the soft surface of plaster which has already set.
 

Up to equal parts of clean, graded silica sand may be added to Uni-Kal and X-KALibur to aid texturing.

##### Uni-Kal or X-KALibur Application over Kal-Kore

1. Tightly scratch material into previously treated joints and cornerbeads, then immediately scratch-in tightly over the wall and/or ceiling area.
2. Double back over the area just troweled with material from the same batch, bringing total thickness up to 3/32" maximum.
3. Begin finish troweling at time of initial set, using water sparingly. Final troweling must be accomplished before complete set takes place, as evidenced by darkening of the surface.

#### COMPOSITION & MATERIALS

Gypsum veneer plasters are mill-mixed with lime, except Kal-Kote basecoat, requiring only the addition of water to make them ready for use. Texture Finish contains graded silica sand.

Plasters contain no asbestos.

#### TYPES

##### Two-Component Systems

*Kal-Kore and Kal-Kore Fire-Shield:* Tapered edge gypsum plastering base.

*Kal-Kote Basecoat:* A high-strength basecoat plaster for application 1/16" minimum thickness over Kal-Kore, masonry or monolithic concrete that has been treated with a bonding agent.

Product	Bag Weight	Water Ratio	PSI	Coverage
<b>Kal-Kote Basecoat</b>	80 lbs. (36 kg.)	10-12 qts./bag	2500	(est.) 1/16" (1.6 mm) on Kal-Kore Base, 150-170 Sq. Ft. (1.2-1.4 Sq. M.) per bag. One coat to level over masonry, 80-100 Sq. Ft. (0.65-0.80 Sq. M.) per bag.
<b>Kal-Kote Smooth Finish</b>	50 lbs. (22.5 kg.)	18-20 qts./bag	1000	(est.) 1/16" (1.6 mm) coat troweled on Kal-Kote basecoat, 145-160 Sq. Ft. (1.17-1.30 Sq. M.) per bag.
<b>Kal-Kote Texture Finish</b>	50 lbs. (22.5 kg.)	11-12 qts./bag	1000	(est.) 1/16" (1.6 mm) coat troweled on Kal-Kote basecoat, 145-160 Sq. Ft. (1.17-1.30 Sq. M.) per bag.
<b>Uni-Kal</b>	50 lbs. (22.5 kg.)	13-15 qts./bag	1400	(est.) 3/32" (2.4 mm) on Kal-Kore Base, 135-150 Sq. Ft. (1.09-1.2 Sq. M.) per bag. One coat to level over masonry, 70-80 Sq. Ft. (0.57-0.65 Sq. M.) per bag.
<b>X-KALibur</b>	50 lbs. (22.5 kg.)	13-15 qts./bag	1500	(est.) 3/32" (2.4 mm) on Kal-Kore Base, 135-150 Sq. Ft. (1.09-1.2 Sq. M.) per bag. One coat to level over masonry, 70-80 Sq. Ft. (0.57-0.65 Sq. M.) per bag.

*Kal-Kote Smooth Finish:* A white, smooth trowel finish applied using conventional plastering techniques and suited for further decoration such as painting or papering. Uni-Kal or X-KALibur Plaster may be used as an alternative.

*Kal-Kote Texture Finish:* Provides a variety of decorative textured surfaces. Contains graded silica sand.

### One-Component Systems

*Kal-Kore and Kal-Kore Fire-Shield:* Tapered edge gypsum plastering base.

*Uni-Kal Plaster:* Designed for trowel application using common plastering techniques. Uni-Kal is a specially designed single-component veneer plaster for application over tapered edge 1/2" regular or 5/8" Kal-Kore Fire-Shield. The strength of Uni-Kal is less than a two-component system, but provides a surface resistant to abrasion, cracking and nail-pops.

*X-KALibur Plaster:* X-KALibur may be used as an alternative to Uni-Kal for trowel applications when extended working time is desired. X-KALibur is a single-component veneer plaster for application over tapered edge 1/2" regular or 5/8" Kal-Kore Fire-Shield. The strength of X-KALibur is less than a two-component system, but provides a surface resistant to abrasion, cracking and nail-pops.

Kal-Kote Smooth Finish, Kal-Kote Texture Finish, Uni-Kal and X-KALibur may be used as a finish coat over conventional plaster base coats of Gypsolite and Two-Way Hardwall as manufactured by National Gypsum Company.

### ACCESSORIES

*Kal-Mesh:* A coated fiberglass tape which can be stapled to Kal-Kore to reinforce all joints and interior angles.

*Kal-Korner Bead:* A special galvanized bead with a 1/8" ground and 1-1/4" flanges used to reinforce exterior corners.

*Expanded Veneer Cornerbead:* Used as an alternative to the Kal-Korner Bead for exterior corners. Galvanized steel with 1-1/8" flanges.

*Veneer L Trim Casing Bead:* Used as a finished edge at door and window jambs; galvanized steel.

*Veneer J Trim Casing Bead:* Used as a finished edge at door and window jambs by slipping over edge of plaster base; galvanized steel.

*E-Z Strip Control Joint:* An extruded vinyl control joint to relieve stresses in Veneer Plaster Systems.

*.093 Zinc Control Joint:* All-zinc control joint designed to relieve stresses in Veneer Plaster Systems.

### APPLICABLE STANDARDS

Kal-Kote Basecoat	ASTM C 587
Uni-Kal Plaster	ASTM C 587
X-KALibur Plaster	ASTM C 587
Kal-Kote Smooth	ASTM C 587
Kal-Kote Texture	ASTM C 587

### TECHNICAL DATA

#### FIRE RESISTANCE

*Kal-Kote Basecoat & Finishes:* Fire ratings equivalent to those of drywall systems can be obtained by applying the corresponding Kal-Kore type and thickness over the same framing member size and spacing, with the same fasteners and 1/8" of Kal-Kote plasters.

*Kal-Kote Smooth Finish:* Requires the addition of water only. It may also be used as a finish for conventional basecoat plasters. Small amounts of commercial retarder may be cautiously used to slow the setting time when used over conventional basecoat plasters. Kal-Kote Smooth Finish is not designed to be applied directly to Kal-Kore Plaster Base.

*Kal-Kote Texture Finish:* Applies as a finish coat over Kal-Kote Basecoat. It requires the addition of water only. Kal-Kote Texture Finish is not designed to be applied directly to Kal-Kore Plaster Base.

*Uni-Kal:* Fire ratings equivalent to those of drywall systems can be obtained by applying the corresponding Kal-Kore type and thickness over the same framing member size and spacing with the same fasteners and 3/32" of Uni-Kal.

*X-KALibur:* Fire ratings equivalent to those of drywall systems can be obtained by applying the corresponding Kal-Kore type and thickness over the same framing member size and spacing with the same fasteners and 3/32" of X-KALibur.

### DECORATION

Job site conditions of temperature and humidity, mineral content of water and variances in aggregates often cause shading discoloration of the plaster. Therefore, the veneer plaster should not be considered a finished product. Plaster should be painted or decorated in some other manner. Paint manufacturers should be consulted as to compatible products. National Gypsum recommends alkali-resistant primers formulated for use over new plaster.

### PAINTING PLASTER

Various job conditions, such as suction differences, wet or only partially dry walls and reactions between paint and lime, may cause unsatisfactory paint finishes, particularly on new construction.

Alkali-resistant primers specifically formulated for use over new plaster will permit decorating with oil or latex type paints. Quality paint products should be used and manufacturers' recommendations followed. Finished plaster should be painted or covered to conceal possible discoloration. The paint system should be suitable for use over plaster surfaces that contain lime, which has a high pH of 10-13.

It is essential that plaster be sound and completely dry before painting. Under good drying conditions, veneer plaster may be painted 48 hours after application.

High build, heavy duty and special purpose coatings such as Epoxy are not recommended over veneer or job gauged lime putty finishes.

In all cases, the paint manufacturer should be consulted and approve paint system suitability for use with gypsum/lime finish plaster.

