

# Gold Bond® Kal-Kore® Plaster Base

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Technical Information  
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## DESCRIPTION

Gold Bond® Kal-Kore® Plaster Base is a tapered-edge gypsum plaster base with 100% recycled gray absorptive face paper surface designed to permit rapid trowel application of Kal-Kote® Basecoat, Uni-Kal® and X-KALibur® one-coat plasters.

Use Kal-Kore® Fire-Shield® Plaster Base in specific fire-rated assemblies.

GridMarX® are printed on the face paper surface to help installers instantly identify stud locations and make accurate cuts without having to pencil in or snap chalk lines.

## BASIC USES

### Applications

Kal-Kore® Plaster Base and veneer plaster systems may be specified for most types of partition and ceiling assemblies, including wood and steel framing, furring and masonry.

**3/8" (9.5 mm) Kal-Kore Plaster Base, regular core** – For construction with framing members spaced 16" (406 mm) o.c.

**1/2" (12.7 mm) Kal-Kore LITE Plaster Base** – For non-fire-rated construction with framing members spaced up to 24" (610 mm) o.c.; sag resistant.

**5/8" (15.9 mm) Kal-Kore Fire-Shield Plaster Base and 1/2" (12.7 mm) and 5/8" (15.9 mm) Kal-Kore Fire-Shield C Plaster Base** – For walls and ceilings in fire-rated construction where the framing members are spaced up to 24" (610 mm) o.c.

### Advantages

- Provides a smooth and durable base for plaster over which paint may be applied.
- Provides the appearance and surface of conventional plaster at a lower cost.
- Provides a strong bond for the application of Kal-Kote® Basecoat Plaster, Uni-Kal® and X-KALibur® Veneer Plasters as well as Gypsolite® Plaster.
- Can use on walls and ceilings. Can install 5/8" Kal-Kore on ceilings with 24" (610 mm) o.c. framing at right angles to framing members.
- Fire-resistant material with a gypsum core will not support combustion or transmit temperatures greatly in excess of 212°F (100°C) until completely calcined, a slow process.
- Expansion and contraction under normal atmospheric changes are negligible.

- Save time and money with MaX 12® and MaX 16® optimized fastener patterns for 5/8" Fire-Shield products to achieve 1-hour fire ratings using fewer fasteners. Visit [GridMarX.com](http://GridMarX.com) for more information.
- Achieves UL GREENGUARD Gold Certification for low chemical emissions into indoor air during product usage. For more information, visit: [ul.com/gg](http://ul.com/gg).

## INSTALLATION RECOMMENDATIONS

### General

- Install plaster base in accordance with methods described in ASTM C844.
- Examine and inspect framing materials to which plaster base is to be applied. Remedy all defects prior to installation of the plaster base.
- Apply plaster base first to ceilings at right angles to framing members, then to walls. Use boards of maximum practical length so that a minimum number of end joints occur. Bring board edges into contact with each other but do not force into place.
- Install batt or blanket ceiling insulation **before** the plaster base when installing a polyethylene vapor barrier on ceilings behind the plaster base. Install the insulation **immediately** after the plaster base when using loose fill insulation. Avoid installation practices that might allow condensation to form behind the base.
- Locate plaster base joints at openings so that no joint will occur within 12" (305 mm) of the edges of the opening unless installing control joints at these locations. Stagger vertical end joints. Joints on opposite sides of a partition should not occur on the same stud.
- Hold plaster base in firm contact with the framing member while driving fasteners. Fastening should proceed from center portion of the board toward the edges and ends. Set fasteners with heads slightly below the surface of the board. Take care to avoid breaking the face paper of the plaster base. Remove improperly driven nails or screws.
- Provide minimum 1/4" (6.4 mm) clearance between boards and adjacent concrete or masonry to minimize wicking of moisture.
- Maintain a room temperature of not less than 40°F (4°C) during application of plaster base.
- Maintain a room temperature of not less than 50°F (10°C) when using adhesive to attach the plaster base and during joint treatment, texturing and decoration, beginning 48 hours prior to application and continuously thereafter until completely dry. Maintain adequate ventilation in the working area during installation and curing period.

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

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

Submittal Approvals: (Stamps or Signatures)

**KAL-KORE®**  
**PLASTER BASE**

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## TECHNICAL DATA

Physical Properties	3/8" Kal-Kore	1/2" Kal-Kore LITE	1/2" Kal-Kore Fire-Shield C	5/8" Kal-Kore Fire-Shield	5/8" Kal-Kore Fire-Shield C
<b>Thickness<sup>1</sup>, Nominal</b>	3/8" (9.5 mm)	1/2" (12.7 mm)	1/2" (12.7 mm)	5/8" (15.9 mm)	5/8" (15.9 mm)
<b>Width<sup>1</sup>, Nominal</b>	4' (1,219 mm) 54" (1,372 mm)	4' (1,219 mm)	4' (1,219 mm) 54" (1,372 mm)	4' (1,219 mm) 54" (1,372 mm)	4' (1,219 mm)
<b>Length<sup>1,4</sup>, Standard</b>	8' – 12' (2,438 – 3,658 mm)	8' – 12' (2,438 – 3,658 mm)	8' – 12' (2,438 – 3,658 mm)	8' – 12' (2,438 – 3,658 mm)	8' – 12' (2,438 – 3,658 mm)
<b>Weight, Nominal</b>	1.3 lbs. / sq. ft. (6.35 k/m <sup>2</sup> )	1.4 – 1.5 lbs. / sq. ft. (6.84 – 7.32 k/m <sup>2</sup> )	1.9 lbs. / sq. ft. (9.28 k/m <sup>2</sup> )	2.2 lbs. / sq. ft. (10.74 k/m <sup>2</sup> )	2.3 lbs. / sq. ft. (11.23 k/m <sup>2</sup> )
<b>Edges<sup>1</sup></b>	Tapered	Tapered	Tapered	Tapered	Tapered
<b>Flexural Strength<sup>1</sup>, Perpendicular</b>	≥77 lbf. (343 N)	≥107 lbf. (476 N)	≥107 lbf. (476 N)	≥147 lbf. (654 N)	≥147 lbf. (654 N)
<b>Flexural Strength<sup>1</sup>, Parallel</b>	≥26 lbf. (116 N)	≥36 lbf. (160 N)	≥36 lbf. (160 N)	≥46 lbf. (205 N)	≥46 lbf. (205 N)
<b>Humidified Deflection<sup>1</sup></b>	≤15/8" (48 mm)	≤10/8" (32 mm)	≤10/8" (48 mm)	≤5/8" (15.9 mm)	≤5/8" (15.9 mm)
<b>Nail Pull Resistance<sup>1</sup></b>	≥56 lbf. (249 N)	≥77 lbf. (343 N)	≥77 lbf. (343 N)	≥87 lbf. (387 N)	≥87 lbf. (387 N)
<b>Hardness<sup>1</sup> – Core, Edges and Ends</b>	≥11 lbf. (49 N)	≥11 lbf. (49 N)	≥11 lbf. (49 N)	≥11 lbf. (49 N)	≥11 lbf. (49 N)
<b>Bending Radius</b>	7' -6" (2,286 mm)	10' (3,048 mm)	10' (3,048 mm)	15' (4,572 mm)	15' (4,572 mm)
<b>Thermal Resistance<sup>5</sup></b>	R = .33	R = .45	R = .45	R = .56	R = .56
<b>Product Standard Compliance</b>	ASTM C1396	ASTM C1396	ASTM C1396	ASTM C1396	ASTM C1396
<b>Fire-Resistance Characteristics</b>					
<b>Core Type</b>	Regular	Regular	Type C	Type X	Type C
<b>UL Type Designation</b>	N/A	N/A	FSK-C	FSK	FSK-C
<b>Combustibility<sup>2</sup></b>	Non-combustible Core	Non-combustible Core	Non-combustible Core	Non-combustible Core	Non-combustible Core
<b>Surface Burning Characteristics<sup>3</sup></b>	Class A	Class A	Class A	Class A	Class A
<b>Flame Spread<sup>3</sup></b>	15	15	15	15	15
<b>Smoke Development<sup>3</sup></b>	0	0	0	0	0
<b>Applicable Standards and References</b>					
ASTM C473 <i>Standard Test Methods for Physical Testing of Gypsum Panel Products</i>					
ASTM C518 <i>Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus</i>					
ASTM C840 <i>Standard Specification for Application and Finishing of Gypsum Board</i>					
ASTM C844 <i>Standard Specification for Application of Gypsum Base to Receive Gypsum Veneer Plaster</i>					
ASTM C1396 <i>Standard Specification for Gypsum Board</i>					
ASTM E84 <i>Standard Test Method for Surface Burning Characteristics of Building Materials</i>					
ASTM E119 <i>Standard Test Methods for Fire Tests of Building Construction and Materials</i>					
ASTM E136 <i>Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C</i>					
Gypsum Association, GA-216, <i>Application and Finishing of Gypsum Panel Products</i>					
Gypsum Association, GA-238, <i>Guidelines for Prevention of Mold Growth on Gypsum Board</i>					
Gold Bond Building Products, LLC Manufacturer Standards, <i>NGC Construction Guide</i>					

1. Specified values per ASTM C1396, tested in accordance with ASTM C473.
2. Tested in accordance with ASTM E136.
3. Tested in accordance with ASTM E84.
4. Please consult your local sales representative for all non-standard lengths and widths. Minimum order requirements may apply.
5. Tested in accordance with ASTM C518.

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Single-Layer Application Spacing for Framing		
Framing Type	Kal-Kore Thickness	Maximum Spacing
Wood	1/2" (12.7 mm)	24" (610 mm) o.c.
	5/8" (15.9 mm)	24" (610 mm) o.c.
Metal Studs w/Furring	1/2" (12.7 mm)	16" (406 mm) o.c.
	5/8" (15.9 mm)	24" (610 mm) o.c.

Bound edge must be at right angles to ceiling joists.

## JOINT TREATMENT

### Paper Tape Method

- Trowel Kal-Kote® Basecoat, 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.
- 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.
- Allow the treated joints to set prior to general plaster application.

### Setting Compound Method

- Mix setting compound per instructions. Do not contaminate compound with other materials, dirty water or previous mixes. Do not retemper mix.
- Apply setting compound to joint by hand or machine tool. Center drywall paper tape over the joint line and embed into the soft compound. Do not over-trowel to a slick surface. Leave the surface rough to provide mechanical keying of the plaster. Allow the treated joints to set prior to general plaster application.

## Kal-Mesh® Veneer Plaster Tape Method

- Do not use self-adhering mesh.
- Center and secure Kal-Mesh® Veneer Plaster Tape over all joints and interior angles with 1/4" (6.4 mm) or 5/16" (7.9 mm) staples.
- Position staples a maximum of 24" (610 mm) apart as follows:

**Joints:** at alternate edges for the run, from end to end and directly opposite one another at either end.

**Angles:** along ceiling edge only for wall-to-ceiling angles. Along one edge for wall-to-wall angles.

- After the first staples are placed at the end of a joint or angle, pull unstapled Kal-Mesh as stapling proceeds to ensure that it will lie flat against the Kal-Kore.
- Allow treated joints to set prior to general veneer plaster application.

## Veneer Plaster Application

Apply veneer plaster over Kal-Kore using one of the following application types:

- Kal-Kote Basecoat over Kal-Kore and smooth finish coat of Kal-Kote Smooth Finish, Uni-Kal or X-KALibur over basecoat, trowel finished.
- Kal-Kote Basecoat over Kal-Kore and texture coat consisting of Uni-Kal or X-KALibur with silica sand over basecoat, float finished.
- Single smooth finish coat of Uni-Kal or X-KALibur, trowel finished.

## DECORATION

Jobsite 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. Consult paint manufacturers as to compatible products. Gold Bond Building Products 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. Use quality paint products and follow paint manufacturer's recommendations. 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, you may paint veneer plaster 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. Kal-Kore Basecoat can also be used for conventional plaster systems. In all cases, the paint manufacturer should be consulted and approve paint system suitability for use with gypsum/lime finish plaster.

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## LIMITATIONS

- Avoid exposure to excessive or continuous moisture and extreme temperatures. Do not use plaster base where it will be exposed to temperatures exceeding 125°F (52°C) for extended periods of time.
- Use in interior applications only. Not intended for use without application of recommended plaster finish coats and paint or other finishes.
- If required, install a vapor retarder behind plaster base. Properly ventilate or condition spaces to remove moisture buildup during plaster application.
- Do not allow weight to exceed 2.2 psf (10.7 kg/m<sup>2</sup>) when installing ceiling insulation above plaster base. Apply insulation and polyethylene vapor barrier (if used) before installation.
- Do not sand finished plaster.
- Properly ventilate or condition attic spaces to remove moisture buildup above gypsum board ceilings. If required, install a vapor retarder in exterior ceilings behind plaster base.
- Avoid installing plaster base directly over insulation blankets with facer flanges placed continuously across the face of the framing members; recess insulation blankets and attach flanges to the sides of framing.
- Isolate plaster base from contact with building structure in locations where structural movement may impose direct loads on gypsum board assemblies.
- Provide control joints spaced not more than 30' (9,144 mm) where employing long continuous runs of walls, partitions or ceilings without perimeter relief.
- Avoid plaster base joints within 12" (305 mm) of the corners of window or door frames unless installing control joints at these locations.
- All ends and edges of plaster base should occur over framing members or other solid backing except where treated joints occur at right angles to framing or furring members.

## FOR MORE INFORMATION

### Architectural Specifications

Gold Bond Building Products CSI MasterFormat® 3-part guide specifications are downloadable as editable Microsoft® Word documents at: [goldbondbuilding.com](http://goldbondbuilding.com).

### Latest Technical Information and Update

Visit [goldbondbuilding.com](http://goldbondbuilding.com) or call National Gypsum Company Construction Services: 1-800-NATIONAL (628-4662).

**Technical Information** Información Técnica

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