



## PlasterMax™ -IND Installation Specifications

### Abuse Resistant Interior Wall Coating for Gypsum Board Assemblies

#### Description

PlasterMax™-IND is a state-of-the-art abuse resistant coating specifically formulated to provide a versatile high-strength interior wall finish gypsum base substrates. The product is installed in two or three applications to achieve a 1/8" minimum veneer over standard gypsum base assemblies. When installed properly, PlasterMax™-IND provides twice the resistance to abrasion than standard CMU block.

#### Climate



#### CAUTION

The objective in controlling the interior climate of the building is to assist PlasterMax™-IND to cure naturally and perform as intended. Premature surface drying and excessive internal heat may compromise the inherent strength and performance characteristics of PlasterMax™-IND.

#### Temperature

PlasterMax™-IND must be applied on interior walls with a minimum surface temperature and ambient room temperature above 50°F. In colder environments the building shall be heated long enough to bring the surface temperature of the substrate above 50°F and maintained until PlasterMax™-IND has sufficiently cured. Do not apply PlasterMax™-IND in temperatures above 95°F.

#### Humidity

The building must have a minimum relative humidity shown in Table 1 to avoid premature surface drying and consistent curing. If low humidity conditions exist for a given ambient temperature then measures must be taken to increase the relative humidity for the duration of the PlasterMax™ application and curing period.

Temp	50°F	55°F	60°F	65°F	70°F	75°F	80°F	85°F	90°F	95°F
Min. R/H	20%	22%	25%	30%	35%	40%	48%	58%	65%	70%

Table 1 - Humidity Minimums

#### Ideal Drying

Ideal conditions for PlasterMax™-IND application are 73°F with a 50% relative humidity. The general rule of thumb for identifying good drying conditions is the lower the temperature the lower the humidity needs to be. Conversely, the higher the building temperature the higher the relative humidity should be for proper material curing.

#### Air Movement

Opening windows and/or assisting air movement with fans can greatly assist in maintaining good drying conditions within a building. In excessively hot and dry areas, minimize air movement across the applied walls and add moisture by wetting the floor or humidifiers. In high humidity areas, increase air flow within the building where PlasterMax™-IND is being installed. Excessive air movement directly on the surface of

the **PlasterMax™-IND** may prematurely dry the surface and create surface cracks. Avoid direct air movement on the **PlasterMax™-IND** surface when using fans or other means of climate control.

## Gypsum Base

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Gypsum base substrates and gypsum base joint treatment in newly constructed buildings must follow manufacturer installation specifications, local building code requirements and conform to ASTM C844.

**PlasterMax™-IND** does not require the use of blue paper faced gypsum base.

## Substrate Preparation

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### Gypsum Base Joint Reinforcement

Reinforce all interior angles and flat joints prior to the application of **PlasterMax™-IND**.

### Fiberglass Reinforcement Mesh

Center and secure 2" fiberglass reinforcement mesh (non self-adhering type) on all flat joints and interior angles with 1/4" or 5/16" staples positioning the staples at a 24" maximum spacing. Flat joints shall have staples opposite one another at each joint end and staggered staples throughout the run.

Interior angles on a wall to ceiling joint shall have staples on the ceiling only. Wall to wall angles shall have staples on one wall only. This allows the mesh to lay flat against the wall during the application of **PlasterMax™-IND**.

### Self Adhering Mesh

Self adhering reinforcement mesh may be used by centering and firmly placing it over all flat joints and interior angles.

### Corner Bead

All exterior angles shall receive metallic corner bead typically used for veneer plaster applications. All corner bead installations shall conform to ASTM C 1047 and the manufacturers' installation instructions.

Pre-treat all joints and corner beads with **PlasterMax™-IND**. Tightly trowel over joint line in both directions preventing voids and fully incorporating the **PlasterMax™-IND** mesh and corner bead flange. Feather the material out to a maximum width of about 6". All pre-treatment shall be allowed to set prior to the **PlasterMax™-IND** application.

### Alternative

#### Flat Joint Treatment

An alternative joint treatment method may be achieved by using standard joint compound, paper joint tape. The joints and shall be finished to Level 2 or higher as specified in ASTM C 840 and Gypsum Association publication GA-214 prior to the application of **PlasterMax™-IND**.

## Mixing Station

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It is recommended to take the time to establish a well organized mixing station. Batching accurately and efficiently will keep the installation on schedule and profitable. The following list provides a checklist for necessary items and practices:

- Tarp off the entire mixing area for easier cleanup
- Water hose or suitable water source
- Power source with GFI receptacle kept away from water usage
- Spare mixer available in case one fails
- Weight scale (optional)
- Graduated water containers for measuring
- Plastic barrel for quickly drawing clean/potable mixing water
- Additional plastic barrel for rinsing/cleaning
- Level surface at "bench" height for measuring water
- Designated area for stocking dry product
- Trash barrel or designated area for opened bags and Trash

## Measuring the Water

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Accurately measuring the water content per unit of **PlasterMax™-IND** is critical. Under watering will diminish work ability where over watering will diminish overall performance and strength. Precise water amounts are scientifically calculated in pounds of water per 50 pounds of dry pre- blended **PlasterMax™-IND** ingredients. These values are easily translated into fluid ounces/gallons as in **Table 2**.

Units	1	2	3	4	5	6	7	8	9	10
Pounds/Water	6.32	12.64	18.96	25.28	31.6	37.92	44.24	50.56	56.88	63.2
Gallons	-	1 gal	2 gal	3 gal	3 gal	4 gal	5 gal	6 gal	6 gal	7 gal
Quarts	3qt	2 qt	1 qt	-	3 qt	2 qt	1 qt	-	3 qt	2 qt
Ounces	-	3 oz	4 oz	9 oz	6 oz	7 oz	8 oz	10 oz	11 oz	12 oz

**Table 2 - Water Values per 50# of PlasterMax™-IND**

## Mixing Equipment

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Mixing **PlasterMax™-IND** is easy but can be made difficult without the right mixing equipment.



Mixing should be done with an electric heavy duty 1/2" drill capable of 500-600 rpm.



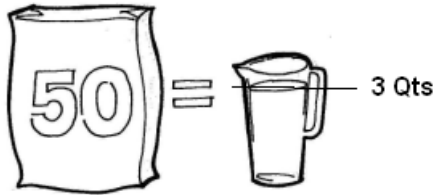
Standard mixing paddles are used with heavy duty 1/2" drills for bucket batching.



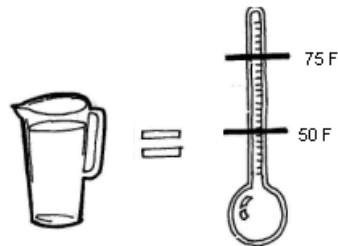
Direct drive mixers are ergonomically designed and minimize torque reduction that increases batch efficiency. Most are equipped with variable speed options that reduce product overflow while blending the dry product with mixing water. Direct drive mixers are recommended over heavy duty 1/2" drills for bucket mixing.

## Mixing

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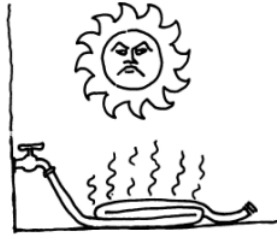


Add approximately three (3) quarts of clean, potable water per 50 lb. package of dry **PlasterMax™-IND**. Always add the total water amount to the mixing vessel before adding the dry material. It is recommended to use exact measuring equipment to duplicate water amounts for each batch mixed.



**Water Temp 50°F-75°F**

Avoid using water less than 50°F and more than 75°. Higher water temperatures will greatly reduce working time and overall workability. Lower temps will slow the set time and reduce application efficiency.



**DO NOT** draw mixing water from water hose exposed to the sun or any other heat source.



Adjust mixing water temperature with a cold water source or add ice if necessary. Mixing water temperatures must not exceed 75°F.



**4 Minute Mixing Time**

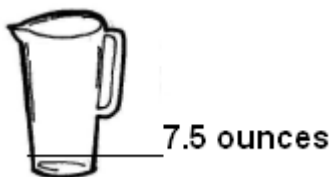
**PlasterMax™-IND** requires less water than typical veneer plasters. It is extremely important to allow sufficient time for the product to adequately dissolve and liquefy. Mixing time is approximately 3 to 5 minutes with the ideal target being 4 minutes. Some of the **PlasterMax™-IND** ingredients trap mixing water before releasing it back into the blend. **DO NOT ADD MORE WATER BEFORE INITIAL MIXING WATER HAS BEEN RELEASED.**

#### **Mixing method**

It is recommended to add the total water amount to the mixing vessel first and add approximately half of the **PlasterMax™-IND** to the water. Slowly mix the added material. Once mixed add the remaining **PlasterMax™-IND** and mix for 1 minute. Stop mixing and allow to mixture to absorb and release the mixing water for approximately 1 minute. Resume mixing for an additional 2 minutes until a smooth, lump free consist is met.

**Optional Mixing Method** Mixing may also be achieved by continuously mixing the material for 4 minutes.

The most common mistake is adding more water before all dry ingredients have absorbed and released the mixing water. **PlasterMax™-IND always appears like it does not have enough mixing water initially.** Continue mixing regardless of its stiff appearance. Small amounts of water may be added to the batch after 4 minutes of mixing. The maximum amount of additional water is 7.5 ounces.



- DO NOT TEMPER AFTER INITIAL MIXING HAS TAKEN PLACE.
- DO NOT ADD MORE THAN 7.5 OUNCES OF ADDITIONAL WATER

## Application

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The **PlasterMax™-IND** application shall conform to ASTM C 843.

The overall objective of the **PlasterMax™-IND** application is to achieve a minimum 1/8" smooth veneer that is flat and plumb-providing excellent abrasion resistance. There are two suggested methods that may be employed.

### Two Coat Method

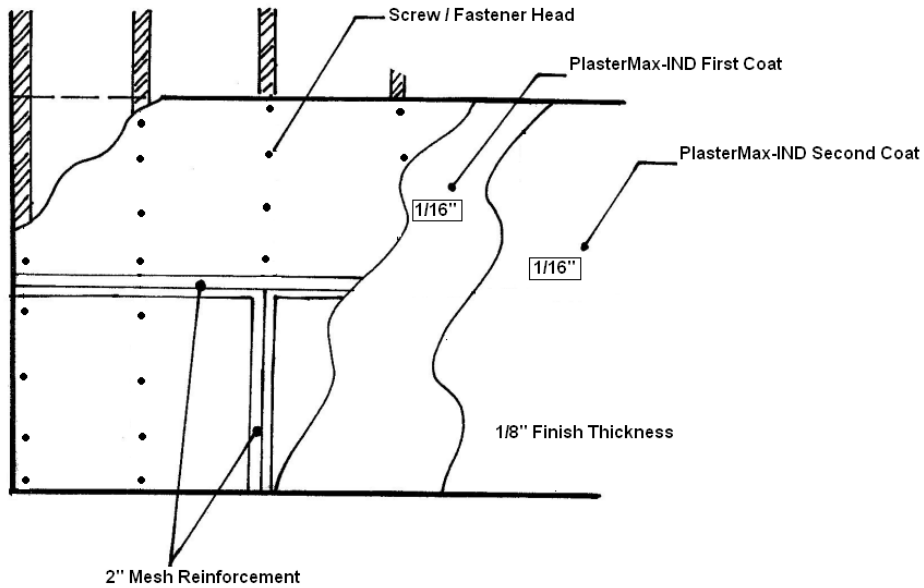
Apply a scratch coat of **PlasterMax™-IND** over the gypsum base and pre-treated areas and immediately double back with more material from the same batch. Continue over the entire wall surface until a 1/16" minimum thickness is achieved.

Attention needs to be given that no trowel lines are left and the material is applied flat and plumb. Ensure that this application is not smooth troweled allowing for a mechanical key for the second coat.

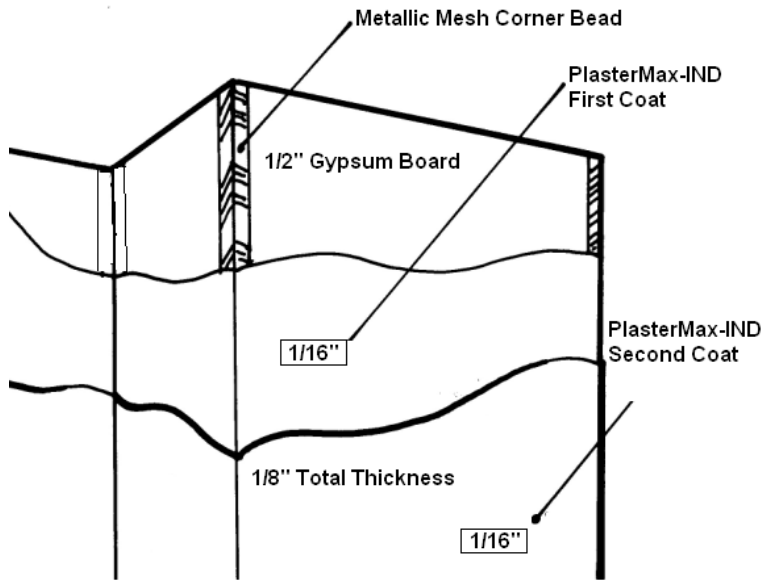
Allow the first coat to set before applying the second coat. Overnight drying is not necessary.

Apply the second coat in the same manner as the first. Remove all trowel marks and imperfections by using light trowel pressure when the material has begun to stiffen. Water may be used but sparingly. Overwatering and over troweling is not recommended as blistering may occur-especially over low suction bases. Blisters can be eliminated by final water troweling practice.

### Two Coat Method & Flat Joint Detail



### Two Coat Method and Corner Bead Detail



### Three Coat Method

Apply a tight (thin) coat of **PlasterMax™-IND** over the pre-treated gypsum base achieving and minimum thickness between 1/32" and 1/16" per coat. Continue the application until the entire surface area is covered.

Once the first coat is set re apply a second coat **PlasterMax™-IND** in the same manner.

The final coat may be applied once the second coat is set. Attention should be given to the final coat finishing as the thinner **PlasterMax™-IND** coats dry more quickly than they do with the two coat method.

Remove all trowel marks and imperfections by using light trowel pressure when the material has begun to stiffen. Water may be used but sparingly. Overwatering and over troweling is not recommended as blistering may occur-especially over low suction bases. Blisters can be eliminated by final water troweling practice.

**Note:** The three coat method has overall advantages over the two coat method with respect to the final finish.

- Tighter (thinner) coats lead to quicker set times enabling the application to be continuous.
- Wall plumb and flatness are more controlled
- **PlasterMax™-IND** 1/8" final thickness is easier to monitor and achieve
- Overall Application time parallels the two coat method

## Surface Protection and Decoration

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<b>Paint</b>	Wall paint is most commonly used to seal, protect, and provide a consistent decorative finish to cured <b>PlasterMax™-IND</b> . Breathable latex primers and paint typically used for veneer plasters are recommended after a minimum 3 day cure period. In cooler and/or more humid environments additional cure time may be needed before painting.
<b>Primer</b>	Sherwin Williams PrepRite 200 Latex Primer or equal is recommended.

## Clean Up

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All mixing and finishing equipment must be thoroughly washed immediately after use. Potable water is sufficient for cleaning.

## Curing

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Drying and curing times may vary widely due to temperature and humidity differences from one location to another. It is important for **PlasterMax™-IND** to be fully dry before applying any surface treatment or decorative product. Light and/or dark patches may indicate that **PlasterMax™-IND** is not fully dry. Questions regarding drying and curing may be directed to GigaCrete authorized technical assistance representative.

## Limitations

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1. **DO NOT OVERWATER**, as this may lead to product failures.
2. **DO NOT** temper the material with additional water after initial mixing as this may lead to product failures. Stiffening **PlasterMax™-IND** must be discarded if it becomes unworkable.
3. Previously opened, torn or damaged bags must be discarded and not used.
4. The entire content of each bag must be mixed at one time.
5. Not recommended for exterior use.
6. Not recommended where subject to weathering or direct water contact
7. **PlasterMax™-IND** is intended for hand application only.
8. **PlasterMax™-IND** is more subject to joint cracking under rapid drying conditions which may be caused by low humidity, high temperatures, direct sunlight, or excessive draft.
9. Cracking may occur if the gypsum base assembly is subjected to stress or deflection during or after the **PlasterMax™-IND** application.

## Coverage

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One 50 lb. (22.6 kg) bag of **PlasterMax™-IND** covers approximately 40 ft<sup>2</sup> at 1/8" thickness, 20 ft<sup>2</sup> at 1/4" thickness.

## Packaging

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**PlasterMax™-IND** is packaged in 50 lb. (22.6 kg) moisture resistant sealed plastic bags.

## Storage

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**PlasterMax™-IND** bags should be stored in a secure, indoor and dry space. It is important that bags maintain their seal and are free of puncture or tear. **PlasterMax™-IND** should be brought to room temperature 24 hours prior to being mixed and applied.

## Shelf Life

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When properly stored in original sealed packaging, **PlasterMax™-IND** has a shelf life of one year from the date of manufacture.

### Tech Support

Contact GigaCrete, Inc. at (702) 643-6363 (PST) or (508) 636-1976 (EST)

### Warning!

Keep out of reach of children.

### TradeMarks.

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**Practice Safety!** Follow good safety and industrial hygiene practices during the handling and installation of products. Take necessary precautions and wear appropriate personal protective equipment as needed. Read material safety data sheets and related product literature prior to specification and installation.