



# Stucco CORE MIX®

## Manufacturer

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## PRODUCT DESCRIPTION

HERB-CRETE Stucco Core Mix produces a creamy, low efflorescing premium stucco. It is made of the highest quality materials packaged in a way which saves on shipping and offers the greatest amount of control and customization. Mix Stucco Core Mix with the commodity products (sand, cement and water) on site to produce a stucco that is tailored to your application.

## USES

HERB-CRETE Stucco Core Mix is an ideal choice for:

- Tradition 3 Coat Stucco Applications
- With White or Gray Portland Cement
- Scratch, Brown and Finish Coats
- Interior and Exterior

## LIMITATIONS

**Do not** apply less than 3/8 of an inch in thickness for scratch and brown coats.

**Do not** apply to surfaces that are sealed.

**Do not** apply to smooth surfaces that have not been scarified (sand blasted, etc.)

## ENVIRONMENTAL REQUIREMENTS

Only apply at temperatures of 40 degrees F (5 degrees C) and above.

Avoid application when there is risk of frost within 24 hours after application. Take proper precautions on extremely hot or windy weather days. Do not submerge product.

## TECHNICAL DATA

### COVERAGE:

#### Packaging

5-lb. bag

10 bags per case = 50 lbs.

One 5-lb. bag covers

90 ft<sup>2</sup> at 3/8"

1000 ft<sup>2</sup> at 3/8" per 50 lb case

### Technical Data

Compressive Strength (psi)  
when mixed as a scratch coat

3 day @ 840 psi

7 day @ 1480 psi

28 day @ 2290 psi

Flexural Strength (psi)

when mixed as a scratch coat

3 day @ 50 psi

7 day @ 60 psi

28 day @ 80 psi

### Technical Support

For additional information and for technical questions, contact HERB-CRETE LLC at:

844-267-3649 (844-CORE MIX)

[www.HERBCRETE.com](http://www.HERBCRETE.com)

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## GENERAL APPLICATION PROCEDURES:

Use an appropriate-sized, paddle-type mortar mixer. Rather than filling it to the brim, you are going to want to fill it to the level of the horizontal shaft, or slightly above the horizontal shaft. This gives sufficient mixing room for the stucco to be mixed. These instructions are for mixing one bag at a time. If you have an appropriate-sized mixer, you can increase the number of bags that are mixed at any given time.

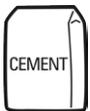
## BASIC MIXING INSTRUCTIONS WHEN USING A TOW-BEHIND MORTAR MIXER

HERB-CRETE Stucco Core Mix is designed to mix with Type I or Type II Portland cement and an appropriate aggregate to produce a high-quality stucco. If rapid set is needed, Type III Portland cement may be used, but the working time is greatly reduced. If working in an area where sulfate resistance is needed, Type IV or Type V may be used.

## MATERIALS LIST



**Stucco Sand**



**Cement**  
1 bag



**Stucco Core Mix**  
One 5-Pound Bag



**Water**



**Pigment (optional)**

## MIXING INSTRUCTIONS:

Materials quantity

- Water approximately 6 gallons
- Loose damp sand 5 five gallon buckets
- Stucco Core Mix 5 pound bag
- Portland cement 1 bag

### Mix in the following sequence.

While the mixer is running add most of the water at this time. Add ½ of the loose damp sand. Add Stucco Core Mix. Add pigment if used. Add ½ the bag of Portland cement. If mix is starting to get slightly stiff, add more of the premeasured water. Add the other ½ of the Portland cement. Add remainder of the loose damp sand. Continue to add measured water slowly until mix has achieved desired consistency. Mix for 5 minutes. Do not over mix as it can entrap air and weaken mortar.

\*See sand section for loose damp sand measurement in cubic feet.

## COMPROMISES

The more water added, the lower the compressive strength and greater chance of plastic shrinkage cracks.

The more sand you add, the less likely for plastic shrinkage to develop, but the lower the compressive and flexural bond strength.



## KEEP READING FOR DETAILED INSTRUCTIONS.

### Additives, approved and potentially deleterious ones

Up to 8 pounds of inorganic concrete pigments can be added per batch.

Do not add any admixtures, magic potions, or other components unless you have written assurance from Herb of HERB-CRETE that such additions will not cause a problem.

HERB-CRETE is not designed for mixing with mortar cements, masonry cements, plastic cements, or blended cements.

### Producing a white or pastel stucco

Stucco Core Mix is the whitest high-quality stucco concentrate available. If you want a white stucco, or a pastel color, you can use this for the finish coat rather than buying a high-cost white or pastel finish coat. To produce a white stucco, blend the Stucco Core Mix stucco concentrate with white Portland cement and the whitest sand that you have in your area. If you want a pastel color, add weighed amounts of pigment to the mixer when the HerbCrete Stucco concentrate is added. Some clients do not want any variation in the color of their stucco. Others prefer to have some variation. If you need instructions on how to apply the finish with minimal color variations, let us know.

If the color of the stucco is not a concern (such as for the scratch coat and the brown coat), you will save money by using gray Portland cement.

### Sand

It is ideal to use a good grade of stucco sand meeting the requirements of ASTM C897. If that is not available, then use a good grade of masonry sand meeting the requirements of ASTM C144. There are many sands across the US that do not meet either standard, and there are areas where sand meeting these specifications is not available. If you do not use one of these sands, you will have to modify the amount of sand used to obtain a creamy, workable mix. This will also impact the amount of water used.

Sands that are graded to a single size, such as sandblasting sand, have much more void space and thus the amount of sand that can be added is greatly reduced. If you use sandblasting sands, blend at least two different sizes.

Sands that have been produced by crushing (referred to as manufactured sand) are harder to trowel than sands that are naturally rounded. With a manufactured sand, you will need to reduce the amount of sand used. This will usually produce a stucco with a higher compressive strength.

Most loose, damp sand contains 80 pounds of sand per cubic foot and about 6 pounds of water. Most dry sand contains about 100 pounds of sand per cubic foot. When the instructions call for a bucket of sand, that is a 5-gallon bucket of loose, damp sand. Such a bucket, level-full, will hold 5.5 gallons.

Following are some weights and measures concerning sand:

**1 gallon of loose, damp sand @ 6% moisture:** 10.2 pounds total weight (9.6 pounds of sand and 0.6 pounds of water)

**1 gallon of dry sand:** 12.0 pounds of sand

**1 gallon of sand standing in water:** 12.0 pounds of sand



### **Sand** *(continued)*

Four 5-gallon buckets of loose, damp sand would contain 211 pounds of dry sand. That amount of dry sand would fit into 3.2 5-gallon buckets.

Five 5-gallon buckets of loose, damp sand would contain 264 pounds of dry sand. That amount of dry sand would fit into four 5-gallon buckets.

Since sand gradation varies, with your first batch or two, if you do not get the creaminess that you desire, cut back on the sand by half a bucket.

The brown or second coat should be a little weaker than the scratch or first coat. This can be accomplished by adding 1/4 bucket more sand in the brown coat than in the scratch coat.

### **Water usage**

The amount of water used will vary, based on whether the sand is wet or dry and on the gradation of the sand.

These instructions are based upon using loose, damp sand. The amount of water and the fluidity of the mix are adjusted based on the judgment of the lead plasterer on the job. Limiting the amount of water and producing a stiff stucco will result in a mortar with a higher compressive strength. As more water is added to the mix, the compressive strength decreases. The ideal amount of water in the mix is the maximum amount of water that can be added and still have sufficient suction so that the stucco does not show any signs of sagging during the curing process (telegraphing of the lath pattern).

## **APPLICATION**

HerbCrete Stucco Core Mix can be either trowel applied, or sprayer applied.

Follow standard techniques for applying. After the 1st coat, also called the scratch coat, has been applied, the surface needs to be prepared to receive the 2nd coat, also called the brown coat. Traditionally a scratch tool has been utilized to cut grooves into that 1st coat. Testing has shown that back dragging the trowel over the stucco produces a surface that is as conducive to bonding the next coat as scratching does. The back dragging also opens up the stucco surface and allows it to breathe. This reduces hairline cracks. If the first coat is slicked down with the trowel, there would not be much mechanical bond between the 1st coat and the 2nd coat.

Back dragging with the trowel also allows the applicator to cut down high spots on the wall. This results in a flatter finished wall. A scratch tool does not allow for cutting down the high spots.

Due to conditions of the substrate, it is possible that the 1st coat of stucco can crack. A vast majority of the plastic shrinkage cracking that will occur will take place within 48 hours. If you delay applying the 2nd coat for 48 hours, any cracking that has occurred in the 1st coat will not telegraph through.

The 2nd coat may be troweled smooth, but the surface should not be slicked or burned. We prefer back dragging with the trowel to give a sandpapering surface.

If the stucco was made with extra water, or if the sand contains efflorescence-causing salts, and the finish coat was applied within 7 days of the 2nd coat, efflorescence will occur. By delaying 7 days before applying the finish coat the chances of efflorescence coming through are greatly reduced.

## **COMPOSITION OF HERBCRETE CORE MIXES**

A blend of proprietary chemicals carries the Portland cement reaction further so that the final product is more stable than a conventional Portland based stucco. It is designed to mix with Portland cement and an appropriate aggregate to produce a high-quality scratch coat or a high-quality brown coat stucco.

This is normally produced with Type I Portland cement.



However, any of the 5 types of Portland Cement can be used base on the jobsite requirements.

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## ACCEPTABLE SUBSTRATES

- SpiderLath or 2.5 diamond metal lath.
- CMU—direct-applied as long as a good bond can be established. Note: Many CMU are manufactured with a water repellent incorporated into the units; therefore, a layer of lath must be used.
- Pre-Cast/Tilt Wall—curing compounds are used in the manufacturing process that can interfere with bonding; bead-blast or sand blast to create a good bonding surface
- ICF—fasten lath securely to the wall.
- Structural concrete insulated forms are an ideal for stucco substrates.

## CURING

All cementitious products need to be cured, not just HERB-CRETE products.

The basic curing process is simple: After the first coat has been scratched and is stiff enough so that it will not be eroded with the moisture that is applied, moisten it often enough so that it does not dry out and dehydrate before it has had an opportunity to cure. The easy way to determine whether you are successful is to observe the color of the first coat. If it remains the rich gray color of freshly applied mortar, it has plenty of moisture. If the color fades and what had been a rich gray color becomes a pale gray color, the mortar has dried out. This stops the chemical curing of the mortar.

While many people use a hose to wet down a wall, it can lead to erosion of the mortar. Herb prefers to use a Hudson-type sprayer and add just enough water to keep the surface moist.

This curing process should be maintained for about 48 hours. Standards mandate at least 24 hours, but 48 hours produces a better product with any stucco used. Remember, you are not trying to add water to the mortar. You are trying to maintain surface conditions so the mortar does not dehydrate by periodically lightly misting or by hanging polyethylene plastic in front of wall.

Weather conditions may affect drying; high heat, sunlight, and wind may be detrimental to proper curing. Minimize application during harsh conditions. Initial set should be achieved in eight hours.

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## CLEANUP

Immediately remove stucco from surfaces not intended to receive stucco with damp sponge or tools and equipment prior to material set. Use clean water.

Working clean is better than having to clean up.



## MAINTENANCE

HERB-CRETE stucco mix does not require routine maintenance; however if water penetration is an issue, it may be treated with a silane or siloxane water repellent every five years.

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## STORAGE

Store product in a dry, covered location on pallets. Do not expose to weather elements or allow getting wet or moist. Do not stack pallets.

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## SHELF LIFE

12 months if stored in original packaging, away from moisture.

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## PRECAUTIONS

In case of contact with eyes, wash immediately with water and consult a physician. Wear appropriate goggles. Keep away from children.

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## WARRANTY

HERB-CRETE LLC warrants this product when used according to manufacturer directions. Warranty covers refund of the purchase price or replacement of product at manufacturer's/seller's option. HERB-CRETE is not liable for installation costs or cost of labor.