

MAGNA WALL™

Plastic Cement

Product Overview, Instructions, & Data

Durable

Famed Roman structures, such as the Pantheon, Colosseum and aqueducts, are still standing today. One secret to the long-term durability of these structures is that the Roman builders turned to volcanic ash to harness the power of pozzolans. Like Roman concrete, fly ash pozzolans in the chemically-balanced formulas of Magna Wall™ stuccos react to free lime, forming additional cement binder. This leads to greater durability of the Magna Wall™ stuccos.

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MAGNA WALL™ | Plastic Cement

product OVERVIEW

Green

Magna Wall™ stuccos provide the Pozzolanic Advantage, and are also the greenest stuccos on the market. The use of fly ash – a recovered resource – reduces depletion of natural resources and conserves landfill space. It also reduces the energy-intensive manufacturing of other concrete ingredients resulting in reduced green house gas emissions.

Basic Use:

Magna Wall™ Plastic (Stucco) Cement is intended for use in general stucco construction as a Scratch, Brown, or Texture coat. It may be trowel or gun applied.

Composition and Materials:

A blend of Portland cement, high-performance pozzolan, and air-entraining additives.

Bag Weight: 94 pound bags (42.7kg)

Coverage:

90 sq. ft. at 3/8" thick scratch coat or 3/8" brown coat
45 sq. ft. at 3/4" thick scratch plus brown coat

Color: Gray

Storage: Store in dry area off the ground.

Shelf life: Approximately 6 months.





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product INSTRUCTIONS

The Pozzolanic Advantage

As the Romans learned, pozzolans like those used in Magna Wall™ stuccos bring many advantages including:

Increased Workability

Growth in Strength

Water Resistance

Increased Flexural Strength

Reduced Efflorescence

A. Mixing Instructions:

a. Magna Wall™ Plastic (Stucco) Cement has been formulated to require only 4.5 to 6.5 gallons of water, depending on the amount of sand used and the moisture content of the sand.

b. Quantities of sand used vary with the function, method of application, fineness of the sand, and experience of the plasterer. Following are starting points for volumes of plaster sand per bag of Magna Wall™ Plastic (Stucco) Cement.

c. For general scratch coat stucco work,
3.0 to 3.5 cubic feet,
4.0 to 4.7 5-gallon buckets, * or
15 to 21 No. 2 shovelfuls. **

d. For general brown coat stucco work,
3.5 to 4.0 cubic feet,
4.7 to 5.5 5-gallon buckets, * or
19 to 25 No. 2 shovelfuls. **

e. For general texture coat stucco work,
3.0 to 3.5 cubic feet,
4.0 to 4.7 5-gallon buckets, * or
15 to 21 No. 2 shovelfuls. **

* Loose fill and screed off. Most 5-gallon plastic buckets level full hold 5.5 gallons.

** Shovel capacity varies with moisture of sand and the operator.

B. Magna Wall™ Plastic (Stucco) Cement is designed to be gun applied, or to be applied by hand.

C. For consistent results, use a mechanical mixer and measure the sand and the water. Mixing 4 minutes will improve the workability and water retention for hand application. Overmixing will entrain excess air, which will lower the compressive strength.



A. Fineness:

This is determined by screening the unmixed cement through a No. 35 mesh sieve.

ASTM C1328	24% Maximum
UBC 25-1	24% Maximum
MW Plastic (Stucco) Cement	16%

B. Autoclave Expansion:

This test is used to predict the long-term hydration of unhydrated particles. This in turn predicts long term failure.

ASTM C1328	1% Maximum
UBC 25-1	1% Maximum
Magna Wall™ Plastic (Stucco) Cement	0.04%

C. Time of Setting:

Initial time of set must be long enough to allow adequate time to apply and trowel the product. The final set time must be rapid enough not to interfere with production.

	Initial Set, Minimum	Final Set, Maximum
ASTM C1328	Not Less Than 90 Minutes (1.5 Hours)	Not More Than 24 Hours
UBC 25-1	Not Less Than 90 Minutes (1.5 Hours)	Not More Than 24 Hours
Magna Wall™ Plastic (Stucco) Cement	105 Minutes (1.75 Hours)	270 Minutes (3.8 Hours)

D. Compressive Strength:

Magna Wall™ Plastic (Stucco) Cement exceeds ASTM strength standards and continues to gain strength over time.

	3 days	7 days	28 days	90 days
ASTM C1328 Minimum	N/A	1800 psi	2900 psi	N/A
UBC 25-1 Minimum	N/A	1800 psi	2900 psi	N/A
MW Plastic (Stucco) Cement	1560 psi	1910 psi	3200 psi	3500 psi

E. Air Content:

Air content affects workability, yield and strength. Plasterers want a high air content to increase workability and yield. However, the higher the air content, the lower the compressive strength. ASTM C1328 and UBC 25-1 set the standard for air content in Stuccos.

	Requirement
ASTM C1328 Minimum/Maximum	8/20%
UBC 25-1	8/20%
Magna Wall™ Plastic (Stucco) Cement	12 to 16%



F. Water Retention:

Stucco is affected by water retention in three ways:

- a. The greater the water retention, the longer the stucco remains workable. With a longer working time, the plasterer does not have to stop to retemper the stucco. This, in turn, increases efficiency and lowers cost. Magna Wall™ Plastic (Stucco) Cement is formulated to remain workable.
- b. Compressive strength and bond strength are reduced with each retempering. Magna Wall™ Plastic (Stucco) Cement does not need retempering as often as stuccos made from masonry cements; therefore, it retains its strength better.
- c. When plastering over block or brick with a high initial rate of absorption, the block or brick can dehydrate the stucco before it sets chemically. This is especially true if the stucco has low water retention. This can cause the stucco to powder and fail to develop strength

ASTM C1328 Minimum	70%
UBC 25-1 Minimum	70%
Magna Wall™ Plastic (Stucco) Cement	82%

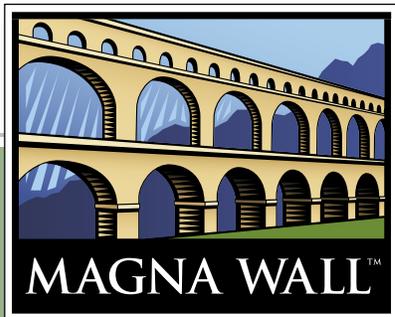
G. Water Resistance:

Magna Wall™ Plastic (Stucco) Cement is formulated to resist water penetration in its finished state. No stucco is waterproof.

CAUTIONS and LIMITATIONS

- A. See package for handling precautions.
- B. MSDS should be viewed in order to understand all warnings.





Premium Stuccos, Mortars, & Masonry Cements



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