

# MAGNA WALL<sup>TM</sup>

# Scratch and Brown with Fiber

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<sup>™</sup> stuccos react to free lime, forming additional cement binder. This leads to greater durability of the Magna Wall<sup>™</sup> stuccos.

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# MAGNA WALL<sup>TM</sup> Scratch & Brown with Fiber



# 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. Magna Wall<sup>™</sup> Scratch & Brown Stucco with Fiber is a premium reinforced product that resists water penetration, plastic shrinkage, cracks, and sagging. Magna Wall<sup>™</sup> Scratch and Brown Stucco with Fiber has demonstrated its value in a variety of applications, including construction of residential, commercial, and industrial structures, as well as retrofitting and rehabilitation of existing projects.

Magna Wall™ Scratch & Brown Stucco with Fiber exceeds the requirements of ASTM C1328 Type S for plastic (stucco) cement.

## **Basic Use:**

Magna Wall™ S&B Stucco with Fiber 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, hydrated lime, fiber, and additives.

Bag Weight: 80 lb. (36.36kg)

## Coverage:

80 sq. ft. at 3/8" thick scratch coat or 3/8" brown coat 40 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.





# MAGNA WALL<sup>TM</sup> Scratch & Brown with Fiber

# 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 Decreased Permeability Water Resistance Increased Flexural Strength Reduced Efflorescence

# A. Mixing Proportions: NOTE: THIS PRODUCT USES LESS WATER

- 1 bag Magna Wall<sup>™</sup> Scratch & Brown Stucco with Fiber
- 2.5 to 3 cubic feet of ASTM C897 sand (stucco sand)
- 4 to 6 gallons of water, depending on the moisture content of the sand

## **B. Mixing Sequence:**

- 1. Add three-fourths of the required water to mixer. Start off with 3.5 to 4.0 gallons per bag of stucco. Adjust based on experience and required workability.
- 2. Add one-forth to one- half of the required sand.
- 3. Add pigments, if used. To obtain maximum benefit of pigments, mix for 2 to 3 minutes before adding stucco. If pigments are used, always add weighed quantities of pigment.
- 4. Add Magna Wall™ Scratch & Brown Stucco with Fiber.
- 5. Add remaining sand.
- 6. Mix until a uniform color and texture are observed.
- 7. Add additional water to achieve desired workability.
- 8. Machine mixing for 4 to 5 minutes is recommended to obtain the maximum workability. Mixing over 5 minutes is not recommended.

# **Application and Curing:**

- 1. Apply the scratch coat a minimum 3/8-inch thick, and allow the scratch coat to cure sufficiently (delaying application of the brown coat for 48 hours will reduce the number of hairline cracks in the stucco).
- 2. Apply the brown coat a minimum of 3/8-inch thick.
- All cementitious stuccos require moisture to cure. Moist cure for 48 hours with regular fogging spray after stucco has taken its initial set (2 - 4 hours).

# Warning – Mixing and Application

- Do not add air-entraining agents, mortar fat, accelerators, or waterproofing agents, as they may interfere with the chemical integrity of this product.
- Do not apply at temperatures below 40°F, or when freezing temperatures are anticipated within 24 hours.

# product DATA

#### A. Fineness:

This is determined by screening the unmixed cement through a No. 325 mesh sieve.

#### **B. Autoclave Expansion:**

This test is used to predict the long-term durability of the product.

### 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.

ASTM C1328	.24% Maximum
UBC 25-1	.24% Maximum
Magna Wall™ S&B with Fiber	.14.7%

ASTM C1328	1% Maximum
UBC 25-1	1% Maximum
Magna Wall™ S&B with Fiber	0.04%

	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™ S&B with Fiber	105 Minutes (1.75 Hours)	230 Minutes (3.8 Hours)

#### D. Compressive Strength:

Magna Wall<sup>™</sup> S&B Stucco with Fiber exceeds ASTM standards and continues to gain strength over time.

## 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 sets the standard for air content in stuccos.

	7 days	28 days	90 days	365 days
ASTM C1328 Minimum	1300 psi	2100 psi	N/A	N/A
Magna Wall™ S&B with Fiber	1500 psi	2400 psi	2900 psi	3600 psi

	Requirement
ASTM C1328 Minimum/Maximum	8%/20%
Magna Wall™ S&B with Fiber	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™ S&B Stucco with Fiber is formulated to remain workable.

b. Compressive strength and bond strength are reduced with each retempering. Magna Wall™ S&B Stucco with Fiber 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. Magna Wall™ S&B Stucco with Fiber is formulated for high water retention, so it can be used over highly-absorbent surfaces.

#### **G. Water Resistance:**

Magna Wall<sup>™</sup> S&B Stucco with Fiber is formulated to resist water penetration in its finished state. No stucco is waterproof.

#### **H.** Fiber:

Magna Wall™ S&B Stucco with Fiber uses ultra fine polypropylene fibers. These fibers lie down for easier finishing and are nearly invisible in the mixed or finished stucco.

#### **CAUTIONS and LIMITATIONS**

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

ASTM C1328 Minimum	70%
Magna Wall™ S&B with Fiber	82%





Premium Stuccos, Mortars, & Masonry Cement



5014 Callaghan Road San Antonio, TX 78228 P: 210.680.3441 www.magnawall.com

For a Magna Wall™ Distributor Near You, Please Call: TF: 800.881.6297 F: 210.680.3449

For Technical Questions Concerning Magna Wall™, Please Call: TF: 800.626.4391 F: 210.682.2020



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