

MAGNA WALL™

FRS (Fiber-Reinforced Stucco)

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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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™ FRS, when used as a one-coat stucco cuts the time required for a three-coat stucco process by more than 50 percent, while its shear values, fire ratings, and life expectancy are comparable to conventional three-coat stucco.

Basic Use:

Magna Wall™ FRS is intended for use as a one-coat stucco. It may be trowel or gun applied.

Composition and Materials:

A blend of Portland cement, high performance pozzolan, hydrated lime, fibers, and additives.

Bag Weight: 80 lb. (36.36kg.)

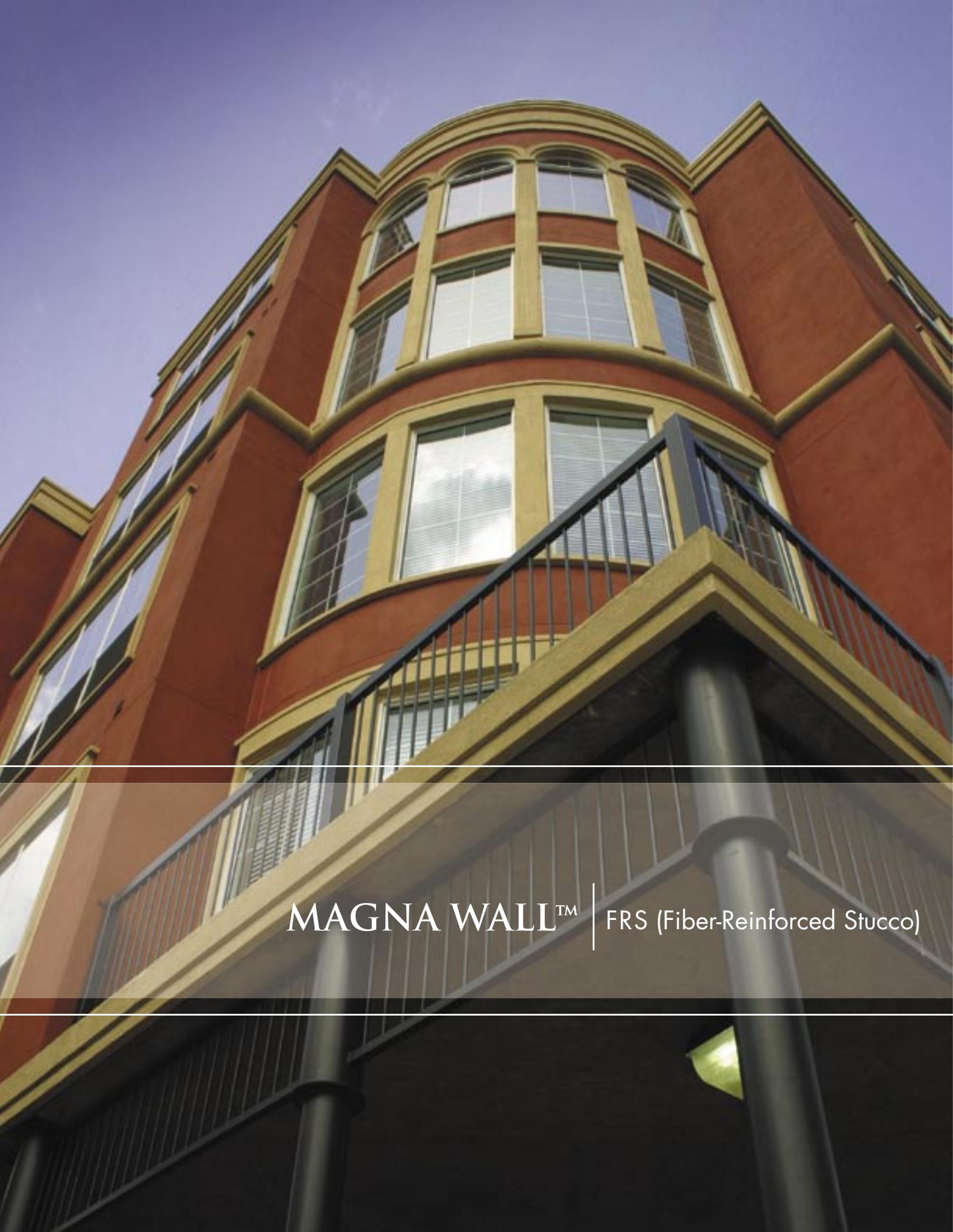
Coverage: 65 sq. ft. at 3/8" thick application rate

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:

NOTE: THIS PRODUCT USES LESS WATER

1. Magna Wall™ FRS is formulated to require only 4 to 6 gallons of water, depending on the amount of sand used and the moisture content of the sand.
2. Use 2.5 to 3.0 cubic feet of loose, damp sand per bag of Magna Wall™ FRS. This is:
19 to 22.5 gallons,
3.5 to 4.0 5-gallon buckets, * or
15 to 18 No. 2 shovelsful. **
3. 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. Over-mixing will entrain excess air, which will lower the compressive strength.

* 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. We recommend measuring with a 5-gallon bucket.

B. Application and Curing:

1. Magna Wall™ FRS may be gun applied, or trowel applied.
2. Apply at a minimum of 3/8-inch thick on metal lath.
3. 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).
4. A rapid-cure primer must be applied if the Magna Wall™ FRS has not cured a minimum of 28 days or pH has not dropped to below 9.5.

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 35°F, or when freezing temperatures are anticipated within 24 hours.



product DATA

Applicable Standards: ASTM C1328 for Type S* • Magna Wall™ FRS Stucco is sold under NER Legacy Report 459 and ICBO ER 4776.

*ASTM does not have a standard for one-coat stucco. The standard listed is for plastic cement.

A. Fineness:

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

ASTM C1328	24% Maximum
Magna Wall™ FRS	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
Magna Wall™ FRS	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 Min. (1.5 Hours)	Not More Than 24 Hours
Magna Wall™ FRS	150 Minutes (2.5 Hours)	270 Minutes (4.5 Hours)

D. Compressive Strength:

Magna Wall™ FRS exceeds ASTM standards and continues to gain strength over time.

	3 days	7 days	28 days	90 days
ASTM C1328 Minimum	N/A	1300 psi	2100 psi	N/A
Magna Wall™ FRS	1250 psi	1600 psi	2600 psi	3200 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 sets the standard for air content in plastic stuccos.

	Requirement
ASTM C1328 Minimum/Maximum	8/20 %
Magna Wall™ FRS	12/16 %

F. Water Retention:

ASTM C1328 Minimum.....	70%
Magna Wall™ FRS	82%

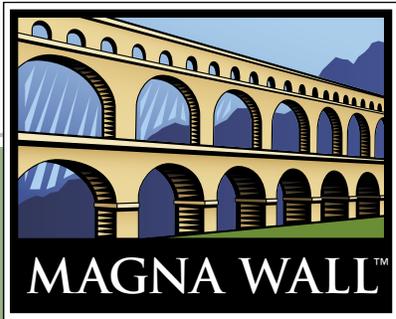
G. Water Resistance:

Magna Wall™ FRS 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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