

# ROSENDALE



## NATURAL CEMENT PRODUCTS

# ROSENDALE 14 S

### Rosendale Natural Cement-Based Plaster For Repair Or Replacement Of Historic Stucco

#### DESCRIPTION

**ROSENDALE 14-S** is a series of custom-matched, pre-packaged natural cement-based plasters for repair or replacement of historic renders and stuccos. It is prepared in conformance with traditional recipes for natural cement renders, which were widely used in the 19<sup>th</sup> century in North America. Stuccos based on natural cement have endured for more than 150 years, even under severe coastal service exposures, and feature high vapor permeability and low modulus of elasticity.

#### FEATURES

**ROSENDALE 14 S** offers long-term performance features which are unique to natural cement products, including:

- **Fast Set:** Typical initial set time is <30 minutes, and final set time is <60 minutes.
- **Moderate Strength:** Compressive strength is similar to fully-reacted lime renders, typically 400-1000 psi. But unlike lime products which tend to set only at the surface and then require very long periods of time for deeper reaction with atmospheric carbon dioxide, natural cement is a true hydraulic cement, achieving full-depth set within minutes and full cure within months.
- **Water Resistance:** Natural cement plasters withstand severe wind-driven rain exposures within a short time of application, facilitating the installation process. They can also be formulated for water immersion and below-grade foundation coatings.
- **Early Freeze Resistance:** Natural cement products require only a relatively short period of protection from freezing, facilitating installation over the course of a much-extended working season in northern climates, as compared with lime and hydraulic lime products.
- **Low Modulus:** Unlike Portland cement plasters which tend to embrittle with time, natural cements continue to relieve stress and remain mechanically compatible with masonry substrates, even after more than a century of performance.
- **High Permeability:** Natural cements permit higher rates of moisture vapor transmission than Portland cement-based plasters, assuring that buildings and structures will “breathe”, avoiding moisture entrapment.

#### APPLICATION

**ROSENDALE 14 S** natural cement plasters are applied in accordance with traditional masonry practices. These practices are taught to masons and restoration contractors in the course of hands-on training workshops, which are offered on a regular basis. On-site training services are also available. Applicators meeting the performance requirements of the training workshop are individually certified. Edison Coatings also makes alternate provisions for acceptance of experienced masons who have demonstrated their knowledge and abilities in traditional masonry practices.

General installation guidelines are typical of all renders and plasters. Substrates must be sound, clean, roughened and properly prepared. For stucco applications over brickwork, the masonry mortar joints should be ground out to a depth of ½” minimum. The stucco is then applied in two applications, with the first just filling the joints and spread to provide a thin “bond coat” on the masonry surfaces. A second, heavier application is then applied and finished immediately. Thorough pre-wetting is required to assure that the stucco will not dry too quickly. **ROSENDALE 14 S** must be mixed with clean water in accordance with printed mixing instructions, and water addition levels must be controlled in order to obtain optimum color uniformity and best performance.

Mixed stucco must be used before initial set, so mix only as much material as will be used within 10 minutes. Once material has begun to set, it should not be re-tempered or adjusted with additional water, but should be discarded.

Once the material has been finished, it must be maintained in a damp condition throughout its curing period. Generally, this period of wet curing will be a minimum of 3 days, depending on conditions. Consult your Edison Coatings technical representative for curing guidelines for your specific project conditions. Acceptable curing methods include draping burlap over the fresh stucco and maintaining the burlap in a damp condition, or frequent misting with water, or covering with polyethylene.

## PERFORMANCE

While individual custom formulations will vary somewhat in their properties, the following are typical for Rosendale natural cement products.

PROPERTY	TYPICAL VALUES
SET TIME	Initial: 10-20 minutes, Final: 30-60 minutes
COMPRESSIVE STRENGTH	Typically 600-1000 psi @ 90 days
MODULUS OF ELASTICITY	535,000 to 640,000 psi
TENSILE STRENGTH	35-75 psi at 90 days
MODULUS OF RUPTURE	400 - 600
DRYING SHRINKAGE	<0.3%



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