Edison Coatings, Inc.

ROSENDALE

NATURAL CEMENT PRODUCTS®

CONCRETE 16B

Natural Cement Based Beton for Repair or Replacement of Historic Concrete

DESCRIPTION

ROSENDALE 16 B Beton is a series of custom-matched, pre-packaged natural cement-based mixtures for repair or replacement of historic concretes. It is prepared in conformance with traditional recipes for natural cement concretes, which were widely used in the 19th and 20th centuries in North America. Concretes 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.

Rosendale Natural Cement Products® are produced from argillaceous limestones conforming to the requirements of *ASTM C10 Standard Specification for Natural Cement*.

FEATURES

ROSENDALE 16 B offers long-term performance features which are unique to natural cement products, including:

- **Fast Set:** Typical initial set time is 30 - 60 minutes.
- **Moderate Strength:** Compressive strength is lower than for portland cement concretes, typically 1000-3000 psi.
- **Water Resistance:** Natural cement concretes 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 foundations.
- **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 concretes which tend to embrittle with time, natural cements continue to relieve stress and remain mechanically compatible with historic substrates, even after more than a century of performance.
- **High Permeability:** Natural cements permit higher rates of moisture vapor transmission than Portland cement-based concretes, assuring that buildings and structures will “breathe”, avoiding moisture entrapment.

APPLICATION

ROSENDALE 16 B natural cement concretes are applied in accordance with traditional 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 practices.

General installation guidelines are typical of all concretes. Substrates must be sound, clean, roughened and properly prepared, and formwork should be treated with a suitable release agent. **ROSENDALE 16 B** 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. Unless otherwise specified, **ROSENDALE 16 B** is modified with a high range water reducing admixture to facilitate placement while minimizing water-cement ratio.

Mixed concretes must be placed before initial set, so mix only as much material as will be used within 10-20 minutes. Once material has begun to set, it should not be re-tempered or adjusted with additional water and should be discarded.

Finish as you go, immediately after placement. 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 weather conditions. Consult your Edison Coatings technical representative for curing guidelines for your specific project conditions. Acceptable curing methods include draping burlap over the fresh concrete 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	**30-60 minutes**
COMPRESSIVE STRENGTH	**Typically 1000-3000 psi @ 90 days**
MODULUS OF ELASTICITY	**535,000 to 640,000 psi**
TENSILE STRENGTH	**35-75 psi at 90 days**

Edison Coatings, Inc.

Revised: 06/2023

3 Northwest Drive, Plainville, CT 06062

Phone: (860) 747-2220 or (800) 341-6621 **Fax: (860) 747-2280 or (866) 658-1189**

E-mail: chad@edisoncoatings.com **Internet:** www.edisoncoatings.com