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 (Supersedes August 2009)

MEADOW-CRETE FNP® EXTENDED

One-Component, Pre-Extended, Flowable, Form & Pour Structural Repair Mortar

DESCRIPTION

MEADOW-CRETE FNP EXTENDED is a one-component, pre-extended, shrinkage-compensated repair mortar for structural repairs and reinstatement of concrete elements. The product can be formed and poured or formed and pumped utilizing a suitable concrete pump. MEADOW-CRETE FNP EXTENDED is also available with CORTEC® migrating corrosion inhibitor for added protection and mitigation to reinforcing steel. MEADOW-CRETE FNP EXTENDED contains 3/8" (9.5 mm) nominal size aggregate and is suitable for applications requiring cathodic protection, impressed systems, or sacrificial anode applications.

USES

MEADOW-CRETE FNP EXTENDED is ideal for reinstatement or repair of beams, columns, and balcony edges or for partial or full depth horizontal placement. The product is suitable for industrial, transportation, residential, and civil engineering applications.

FEATURES/BENEFITS

- Can be poured or pumped.
- Also available with CORTEC migrating corrosion inhibitor.
- Low permeability/Protects embedded reinforcing steel.
- Suitable for cathodic protection systems.
- Shrinkage compensated/Added dynamic stability.
- Highly engineered/Non-segregating.
- No added slag, chlorides, or microsilica.

PACKAGING

Seventy lb. (31.8 kg) bag yields 0.58 ft.³ (0.016 m³)

Yields listed above are based on seven pints (3.3 L) of water per bag and will vary based on substrate profile, aggregate, variations in mix water amounts, and waste. Field trials should be performed to determine yields based on jobsite conditions.

SHELF LIFE

18 months from date of manufacture when stored indoors on pallets in a dry, cool area. Do not store product outside.

TECHNICAL DATA*

The following data was determined using the maximum water-to-powder ratio of seven pints (3.3 L) per 70 lb. bag at 75° F (23.5° C).

Set Time per ASTM C 191	
Initial	4 hours
Final	6 hours
Consistency	Minimum 5" (127 mm) slump
Compressive Strength per ASTM C 109	
@ 1 day	2000 psi (13.8 MPa)
@ 7 days	4000 psi (27.6 MPa)
@ 28 days	5000 psi (34.5 MPa)
Bond Strength per ASTM C 882	
@ 28 days	1700 psi (11.7 MPa)
Length Change per ASTM C 157	
Drying Shrinkage @ 28 days	0.034% (340 µ strain)
Flexural Strength per ASTM C 348	
@28 days	650 psi (4.48 MPa)
Aggregate Size	3/8" (9.5 mm) nominal
Freeze-Thaw Resistance per ASTM C 666 (Procedure A)	
At 300 Cycles	90% Relative Dynamic Modulus

All technical data is typical information, but may vary due to testing methods, conditions, and operators.

APPLICATION

Surface Preparation ... Perform surface preparation in accordance with International Concrete Repair Institute (ICRI) Technical Guidelines #310.2-1997: Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays. Mechanically roughen or high pressure water-jet the existing concrete substrate to a minimum concrete surface profile (CSP) of CSP-7 or higher, depending on substrate condition. Remove all unsound concrete and provide a profiled, porous surface. The substrate must be structurally sound, dust-free, and free of grease, oil, dirt, curing compounds, release agents, or any other surface or penetrated contaminants that will adversely affect bond. Sanding, grinding, or wire-brushing are not approved surface preparation methods. Saw cut perimeter of repair zone to a depth of 3/4" (19 mm). Completely expose all reinforcing steel, ensuring a minimum clearance of 1" (25.4 mm) behind reinforcing steel. Perform reinforcing steel preparation in accordance with ICRI Technical Guidelines #03730. Pre-soak repair zone for a minimum four hours

CONTINUED ON THE REVERSE SIDE...

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prior to application of MEADOW-CRETE FNP EXTENDED. Substrate must be saturated, surface dry (SSD) and free of standing water.

Mixing ... Mix only complete bags. Using a mortar- or concrete-type mixer designed for products containing a coarse aggregate, pour six pints (2.83 L) water per bag. Slowly add MEADOW-CRETE FNP EXTENDED while mixing. Adjust mix consistency using up to one pint (0.47 L) additional water. Mix for 3-5 minutes or until homogenous and lump-free. Do not over mix. Do not re-temper.

Forming ... Support formwork as to ensure a tight seal with repair zone. Consult professional engineer regarding structural support and shoring requirements. Formwork should be rigid, structurally stable, sealed, and coated with a suitable release agent, such as DUOGARD® from W. R. MEADOWS. Forming should be accomplished in accordance with American Concrete Institute (ACI) 347-88. Proper vent and drainage ports should be installed as required to ensure no entrapment of air voids.

Placement ... Pour or pump properly mixed product immediately following mixing to ensure adequate flow. Pumping should be accomplished in accordance with ACI 304-R-85. Do not re-temper or over-work product. Follow ACI 305-R89: Standard on Hot Weather Concreting or ACI 306-R88: Standard on Cold Weather Concreting when applicable. In large applications [greater than 8" (203.2 mm) in depth], follow pertinent ACI recommendations for concrete placement.

Ensure that pump type is designed to handle a minimum size 3/8" (9.5 mm) angular coarse aggregate. Ensure pump is equipped with a suitable Rock Valve™ or S-Valve or similar style pump designed to process coarse aggregate. Mortar or standard-type grout pumps should not be used to pump MEADOW-CRETE FNP EXTENDED.

Curing ... Cure in accordance with ACI 308. Cure MEADOW-CRETE FNP EXTENDED immediately following removal of forms prior to a seven-day cure time using a curing compound such as 1100-CLEAR or 2200-WHITE from W. R. MEADOWS. Curing compounds may discolor and may require complete removal prior to top coating, painting, sealing, waterproofing, or similar application.

PRECAUTIONS



LIMITED WARRANTY

W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

Disclaimer

The information contained herein is included for illustrative purposes only, and to the best of our knowledge, is accurate and reliable. W. R. MEADOWS, INC. cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As W. R. MEADOWS, INC. has no control

over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.

Contains Portland cement and crystalline silica (sand), which are suspected carcinogens. Skin and eye irritant. Dust may cause respiratory tract irritation. Follow OSHA safety regulations when handling. Avoid inhalation of dust. Avoid direct contact with this product. Utilize chemical resistant gloves and safety glasses to minimize direct contact. May cause serious delayed lung injury (silicosis). If contact occurs, wash affected areas with mild soap and water. For eye contact, flush with water for a minimum 15 minutes and contact a physician immediately. Keep product out of reach of children. For industrial use only. Not for consumption. Refer to Safety Data Sheet for complete health and safety information.

MEADOW-CRETE FNP EXTENDED is recommended for concrete repairs only. Do not use as an underlayment, topping, or overlay. Do not apply below 40° F (4° C) or when rain is imminent. Protect from freezing for a minimum of 48 hours. Do not bridge moving cracks. Extend existing control and expansion joints through MEADOW-CRETE FNP EXTENDED. Do not add any admixtures. Exceeding liquid requirements shall result in reduced physical properties. Realize that set time will decrease as the product, air, substrate, and mixing liquid temperature increases and will increase as the temperature decreases. Repair areas should be saw cut and slightly undercut to a minimum depth of a 3/4" (19 mm). Do not featheredge. Protect from conditions that may cause early water loss: wind, low humidity, high temperature, direct sunlight. Early water loss is transpired in thin applications. Failure to follow ACI concreting and industry standard practices will result in decreased material performance.

LEED INFORMATION

May help contribute to LEED credits:

- MRc9: Construction and Demolition Waste Management

For further LEED information and SDS, visit

www.wrmeadows.com.