

## **MEADOW-CRETE® FNP EXTENDED N.E.**

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

### **DESCRIPTION**

MEADOW-CRETE FNP EXTENDED N.E. is a one-component, pre-extended, high slump, shrinkage-compensated concrete repair product for structural repairs and reinstatement of concrete elements. MEADOW-CRETE FNP EXTENDED N.E. can be formed and poured or formed and pumped utilizing a suitable concrete pump. MEADOW-CRETE FNP EXTENDED N.E. contains 3/8" nominal size aggregate and is also suitable for applications requiring cathodic protection, impressed systems, or sacrificial anode applications.

### **USES**

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

### **FEATURES/BENEFITS**

- High slump/Can be poured or pumped.
- 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 micro-silica.

### **PACKAGING AND YIELD**

Eighty lb. (36.3 kg) bag yields 0.60 ft.<sup>3</sup> (0.018 m<sup>3</sup>).

Yields listed above are based on 3.25 quarts (3.07 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 (TYPICAL)**

12 months when stored on pallets in a dry, cool area.

### **TECHNICAL DATA**

The following data was determined using the maximum water to powder ratio of 3.25 quarts (3.07 L) per 80 lb. (36.3 kg) bag at 75° F (23.5° C).

#### Set Time per ASTM C 191

Initial 3 hours  
Final 4 hours

Consistency Minimum 5" slump

Compressive Strength per ASTM C 109  
@ 1 day 3000 psi (20.6 MPa)  
@ 7 days 4000 psi (27.5 MPa)  
@ 28 days 6000 psi (41.3 MPa)

Bond Strength per ASTM C 882 (No bonding agent used. Pre-dampening of properly prepared substrate.)  
@ 28 days 1800 psi (12.3 MPa)

Length Change per ASTM C 157  
Drying Shrinkage @ 28 days 0.02%

Splitting Tensile Per ASTM C 496  
@ 28 days 850 psi (5.8 MPa)

Flexural Strength per ASTM C 293  
@28 days 1000 psi (6.8 MPa)

Aggregate Size 3/8" nominal

Freeze-Thaw Resistance per ASTM C 666 (Procedure A)  
At 300 Cycles 99% Relative Dynamic Modulus

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

### **LEED INFORMATION**

May help contribute to LEED credits:

- MR Credit 5: Regional Materials

*CONTINUED ON REVERSE SIDE...*

**FOR BEST PERFORMANCE:**

- MEADOW-CRETE FNP EXTENDED N.E. 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 N.E.
- 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 and direct sunlight. Early water loss is exasperated in thin applications.
- Failure to follow ACI concreting and industry standard practices will result in decreased material performance. Proper application is the responsibility of the user. Field visits by W. R. MEADOWS personnel are for the purpose of making technical recommendations only, and are not to supervise or provide quality control on the jobsite.

**SURFACE PREPARATION**

Perform surface preparation in accordance with 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 the 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" (2.54 cm) behind reinforcing steel. Perform reinforcing steel preparation in accordance with ICRI Technical Guidelines #03730. Pre-soak repair zone for a minimum four hours prior to application of MEADOW-CRETE FNP EXTENDED N.E. 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 70 lb. (31.8 kg) bag. Slowly add MEADOW-CRETE FNP EXTENDED N.E. 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 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" (20.3 cm) in depth], follow pertinent ACI recommendations for concrete placement. Recommended equipment is a variable pressure, big rock pump having a minimum 5" outlet with a swing tube or rock valve, no ball valves, and a minimum 3" ID hose.

**Curing ...** Cure in accordance with ACI 308. Cure MEADOW-CRETE FNP EXTENDED N.E. 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**

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 Material Safety Data Sheet for complete health and safety information.

**For further LEED information, visit [www.wrmeadows.com](http://www.wrmeadows.com).**



**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.