

REPCon® UW MORTAR

Fiber-Reinforced Underwater Hand Pack Repair Mortar



DESCRIPTION

RepCon® UW Mortar is a single-component, polymer-modified, fiber reinforced concrete repair mortar for use in underwater hand applied concrete repair applications. RepCon® UW Mortar is designed for use underwater in applications from 1/2" up to several inches. RepCon® UW Mortar is specially formulated minimal wash-out and salt-water, chloride and sulfate resistance.

Uses include:

Underwater concrete tanks, dams, seawalls, piles, piers and other marine or hydraulic structures

FEATURES/BENEFITS

- One-component dry polymer-modified, just add water
- Anti-Wash out technology for easy hand placement
- Cohesive consistency for optimum adhesion
- Easy-to-apply/finish consistency up to several inches
- High early strength for fast turn around in tidal zones
- Non-shrink for maximum durability

APPLICATION

Surface Preparation: The concrete must be sound and free of all marine growth, foreign material, including , laitance or other surface contaminants. Best results will be obtained by saw cutting the perimeter of the repair a minimum 1/2" and water blasting the area, providing a uniform depth and high surface profile for proper bonding.. Do not feather edge. Surface temperature must be between 45F and 90F.

Mixing: Mix 5.5-6.0 pints (depending on desired consistency) of clean water per 50 pound bag of material.

Mix with a heavy duty low speed drill. Add recommended amount of clean water into the container, followed by slowly adding the RepCon® UW Mortar. Mix 3-4 minutes to desired non-sag consistency. The UW Mortar will appear to be too dry for the first 2-3 minutes but with continued mixing will activate and become a smooth mortar after 4 minutes. Mix only what can be applied within the setting period (approx 10 mins).

After mixing, immediately place in a bucket and submerge to maximize work time.

Placement: Firmly place the RepCon® UW Mortar into the prepared area, ensuring intimate contact with the bonding surface.

In cold weather tidal applications exposed to the air, protect the RepCon® UW Mortar from freezing until it reaches 1000 psi.

In hot weather tidal applications exposed to the air, keep the repair mortar wet for at least 30 min after hardening.

PACKAGING

50 lb bag or 50 lb plastic pail

Coverage: approx 20 sq-ft @ 1/4"

CLEAN UP

Tools and equipment may be cleaned with water before RepCon® UW Mortar hardens.

SHELF LIFE

Shelf life of unopened bags stored in a dry facility is 12 months. Excessive temperature differential and/or high humidity can shorten the shelf life expectancy. Store in a cool, dry area away from direct sunlight.

TYPICAL TEST DATA

Set Time at 70°F (ASTM C266)	
Initial Set	10 min
Final Set	20 min
Compressive Strength (ASTM C109)	
1 hour	3,050 psi
3 hour	4100 psi
1 day	5150 psi
7 days	10,200 psi
28 days	11,300 psi
Underwater Bond Strength (ASTM C882)	
14 days	1150 psi
Flexural Strength (ASTM C348)	
28 days	1200 psi
Coefficient of Thermal Expansion (ASTM C531)	
4.1 x 10 ⁻⁶ in/in/°F	
Yield Per Bag	.42 cu-ft



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LIMITATIONS/PRECAUTIONS

Do not exceed the recommended mix water amount. RepCon® UW Mortar is a fast setting product, so mixing equipment should be cleaned with water as soon as possible.

Do not allow repairs to freeze until the material has reached a minimum of 1000 psi compressive strength. In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices. Use only potable water for mixing. Minimum surface and ambient temperature of 45°F and rising is required at the time of application. For optimum results, condition material to between 65°F and 85°F.

Caution: Contains Portland cement and sand. Cement will cause irritation. Avoid contact. A dust respirator, safety goggles, and rubber gloves are recommended. Avoid prolonged contact with clothing. In case of contact with eyes, immediately flush with water for at least 15 minutes. Get prompt medical attention. Do not wear contact lenses when working with this product. DO NOT take internally. Keep out of reach of children. Avoid hazards by following all precautions found in the Safety Data Sheet (SDS), product labels, and technical literature. Please read this information prior to using the product.

WARRANTY

NOTICE-READ CAREFULLY CONDITIONS OF SALE

SpecChem offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SpecChem. No other representative of or for SpecChem is authorized to grant any warranty or to waive limitation of liability set forth below.

WARRANTY LIMITATION

SpecChem warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, SpecChem will replace the defective product with new product without charge to the purchaser. SpecChem makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.

INHERENT RISK

Purchaser assumes all risk associated with the use or application of the product.



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