

PRODUCT INFORMATION

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# **HiCap UW**

### Description

HiCap UW is a quick setting, cementitious patching and finishing compound that is chemically engineered for use underwater in fresh, brackish, or saltwater environments. HiCap UW may be packed by hand or with the use of a trowel.

HiCap UW is composed of special portland cements, graded and washed silica aggregates, accelerating additives, an anti-washout admixture, a migratory corrosion inhibiting agent, workability agents and water reducing agents.

Additionally, HiCap UW is available in two formulations including the standard set time and an extended set time version. Both products achieve the same performance qualities with the set times being the only difference.

### **Uses**

HiCap UW is ideal for use in marine environments, such as below grade and underwater repairs. HiCap UW may be mixed in a dry environment, and then taken underwater and applied. HiCap UW may be applied in horizontal, vertical, and overhead applications. Typical applications include dams, piers, pile repairs, seawalls, sewer pipe, tunnels, and other underwater applications.

#### Packaging/Yield

50 pound pail .45 ft<sup>3</sup> 50 pound bag .45 ft<sup>3</sup>

## **Directions**

## **Surface Preparation**

Surfaces must be structurally sound, clean, and free of loose or deteriorated concrete, rust, marine growth, oily materials and all contaminants. Undercut all edges of the area to a minimum depth of ½". Mechanically abrade the concrete surface to achieve a Concrete Surface Profile (CSP) of a minimum of 4 as per International Concrete Repair Institute (ICRI) Guidelines. Clean all exposed steel and reinforcing.

#### **Application**

Mix 50 lbs. of HiCap UW with 2.65 quarts of POTABLE WATER. It is beneficial to mix all of the water with 50% of HiCap UW, and then slowly add the remaining powder to make certain that all ingredients are properly wetted out.

## Physical Properties - 75°F

Standard Formulation
Initial Set (ASTM C-191)

Final Set (ASTM C-191)

20-30 minutes
30-35 minutes

**Extended Formulation** 

Initial Set (ASTM C-191) 35-45 minutes Final Set (ASTM C-191) 40-50 minutes

Compressive Strength

(ASTM C-109) 3 hours 3.000 psi.

1 day 4,000 psi 7 days 6,000 psi 28 days 7,300 psi

Slant Shear Bond Strength 1 day 1,030 psi (ASTM C-882) 7 days 1,570 psi

Percent Length Change

In Water (ASTM C-157) 28 days +0.04%

Freeze Thaw Durability @ 300 Cycles (ASTM C-666, Procedure A) 98.4%

Thoroughly mix until uniformly blended but no more than 3-5 minutes. The use of a low RPM (1/2" drill) and a mud paddle is recommended. Do not retemper or add sand to this mix. Do not ever add plasticizers, accelerators, retarders, or any other ingredients besides potable water unless advised by Kaufman Products in writing.

Scrub HiCap UW intimately into the pores of the roughened surfaces with a gloved hand, then pack the rest of the area with the mixed material immediately. HiCap UW may also be applied by trowel. HiCap UW may be applied from ½" up to 3" deep in a single lift.

#### **Notes**

Never retemper. Application should always be finished by the time of initial set or stiffening. Read Safety Data Sheet before using.

# **Technical Information**

Test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment.