

VARACRETE LM-011

SPECIAL POLYMER EMULSION FOR WATERPROOFING

DESCRIPTION

VARACRETE LM-011 is a specially formulated Polymer Emulsion for improving the properties of cementitious compositions. **VARACRETE LM-011** is suitable for application which will be subject to continuous underwater immersion such as swimming pools, fountains etc.

ADVANTAGES

- ◆ **Excellent Adhesion:** **VARACRETE LM-011** imparts a three fold increase in the bond strength of mortars. Bond strongly to most common building materials and to old concrete.
- ◆ **Chemical Resistance:** A multi fold increase in the chemical resistance of Portland cement mortars. It resists urine, sugar, brine, milk and dilute chemical solutions.
- ◆ **Easy to use:** **VARACRETE LM-011** mortars are plastic and easily workable.
- ◆ **Durability:** Cures to a hard, tough and wear resistant coating.
- ◆ **Impermeability:** **VARACRETE LM-011** makes the cement mortar impermeable to chlorides and salts.
- ◆ **Waterproofing:** Provides excellent waterproofing characteristics when used with cement as a coating.
- ◆ **Safe:** Non-toxic, Non-flammable and non-hazardous during storage, mixing, application and when cured.

APPLICATION

Dry concrete or substrates should be cleaned to remove rust, grease, laitance and contaminations. Clean the surface by scraping, sandblasting, grinding to remove dirt and loose particles. Then dampen the application area thoroughly using clean water.

A. Brush coating Application

For waterproofing of terraces, toilet blocks, swimming pools, water tanks and basements.

1. After surface preparation, pre-wet the surface with sufficient water.
2. Allow the surface to dry for minimum an hour. Mix 2 kgs. of OP cement with 1 Kg. of **VARACRETE LM-011** homogenously till no lump of air bubble remains in the mix.
3. Apply coating by brush and allow it to dry for 2 hours before application of second coat. Minimum 2 coats are required.

B. Patching Mortar

Depressions and voids can be filled and leveled by using **VARACRETE LM-011** mortar. Use 10% of **VARACRETE LM-011** on cement weight.

Placing: Apply mortar to the substrate using the proper trowel. Scrape mortar into good contact with the substrate. Normal thickness of the mortar is approximately 3 - 6 mm. Do not mix more material than can be covered in 10 - 15 minutes.

MIXING RATIO FOR VARIOUS APPLICATIONS

- ◆ **For Waterproofing Coating:** 2 parts cement to one part **VARACRETE LM-011** by weight.
- ◆ **For Mortars:** 15-20% by weight of cement used
- ◆ **For Flooring Screeds:** 18-20% by weight of cement used

TYPICAL PROPERTIES

Mortar Mix using **VARACRETE LM-011**

- ◆ **Consistency** : Mortar Type at 1:2 cement-sand ratio.
- ◆ **Water absorption to ANSI A 118.4 (F - 7)** = 3.2%.
- ◆ **Compressive strength : ASTM C 109 - 38** N/mm² @ 28 days.
- ◆ **Bond strength to ANSI A 118.4 (F 8.2.5)** = 3.5 N/mm².
- ◆ **Impact resistance:** 30% improved over unmodified mortar.
- ◆ **Abrasion resistance:** 70% improved over unmodified mortar.
- ◆ **Water Permeability:** Satisfactory as per IS 2645.

CURING

1. **VARACRETE LM-011** coating should be protected from movements or traffic for at least 48 hours and kept moist for the next 24 hours by sprinkling of water or covering with wet gunny bags. Continue the moist curing for at least 72 hours before submersion or ponding in water.

2. Curing must be continued for minimum 28 days before exposure to weather. Ponding with water for 28 days is itself a waterproofing test.

PACKAGING

VARACRETE LM-011 is available in 20 Kg & 200 Kg packing.

PRECAUTIONS

Cleaning : All equipment must be cleaned with water immediately after use. Mixes containing this product must not be emptied into drainage systems.

Storage : Shelf life 12 months when stored in dry conditions at moderate temperature and humidity. Protect the product from frost.

Fire resistance : The product is not flammable.

PERFORMANCE STANDARDS

VARACRETE LM-011 conforms to the performance requirements of **IS-2645, ASTM-C 241** and **ANSI 136.1**.

HEALTH AND SAFETY

VARACRETE LM-011 is non toxic but it is mildly alkaline. Gloves should be worn during application. Splashes to the skin or eyes should be removed with clean water. In the event of the prolonged irritation, seek medical advice.