

# PROCRETE 1000 OPB

## (Osmotic Pressure Barrier)

### Polymer Modified Cementitious Grout

#### **DESCRIPTION:**

**PROCRETE 1000 OPB** is a one component, Polymer modified resurfacing mortar with higher performance characteristics for use when placed as an overlay, thin patch or higher strengths are required.

#### **USES AND APPLICATIONS:**

- Resurfacing un-level or damaged concrete
- Patching of sloping areas for water run off
- Patching concrete on horizontal and vertical surfaces, interior and exterior, above and below grade.
- PROCRETE 1000 OPB may be used for structural repairing of concrete on parking facilities, ramps, bridges, tunnels and balconies.

#### **ADVANTAGES:**

1. High early compressive, tensile and flexural strengths. strength
2. Very low shrinkage
3. Compatible with the thermal movements of concrete
4. Excellent bond strength
5. Increased abrasion resistance
6. Resistant to dilute acids and mild chemicals
7. Does not contain calcium aluminate cement
8. Fast setting, self curing and breathable
9. Excellent freeze/thaw resistance

#### **SURFACE PREPARATION:**

All surfaces must be clean and sound before placing PROCRETE 1000 OPB. Remove all spalling or unsound concrete from the patch area by use of chisel or air hammer. Any bond inhibitors such as oil or grease should be removed in a alike manor. It is recommended to saw cut all edges to accommodate repairs. If reinforcing steel is exposed, follow ACI standards. If reinforcing steel must be replaced, follow ACI Standards for

the removal and installation of reinforcing steel. For overlaying applications, remove all laitance, grease, dust, curing compounds and other bond inhibiting materials. This must be done through mechanical means (shot blasting or scarifying). Dampen surface with water to prevent premature drying of the mixed trowel mortar. The use of a primer is usually not necessary. However, when porous concrete is encountered, the use of PRO LATEX MORTAR is recommended. This use of a slurry coat is necessary for overlaying applications but not for patching applications.

#### **MIXING:**

PROCRETE 1000 OPB maybe mixed by manual or mechanical means.

**Mechanical Mixing:** Mix in a 5 gallon pail using a heavy duty, slow speed drill (400-600 rpm) with a mixing paddle.

Pour 5-6 quarts of PRO LATEX BINDER or water into the mixing container and then add the PROCRETE 1000 OPB. Mix until a uniform, no slump consistency is obtained, 2 minutes, Do not over mix! Do not mix more material than can be placed in 20 minutes.

**PROCRETE 1000** -can be mixed in a mortar mixer as recommended above.

#### **APPLICATION:**

The surface should be damp (SSD) and the PROCRETE 1000 OPB should be placed immediately after mixing. The PROCRETE 1000 OPB should be forced into the area to be patched to insure a good mechanical bond. Next, continue to fill the patch area to above the level of the existing concrete. The mortar should be allowed to stiffen slightly and then shaved to flush with the surrounding substrate. Finish work may be done with a steel, wood or power trowel.

**POT LIFE:**

PROCRETE 1000 OPB has a pot life of 30 minutes at 70°F (21° C).

**CURING:**

PROCRETE 1000 OPB will reach its final set in four hours at 70 °F (21 °C). under normal conditions, no special curing is required. However, under high temperature, humidity or strong wind, the patch must be protected from rapid drying. The use of a liquid curing compound, wet burlap or polyethylene sheeting is recommended.

PROCRETE 1000 OPB is concrete gray when cured.

**NOTE:** The maximum depth of a lift of PROCRETE 1000 OPB must not exceed .5“(7.5 cm.). When repair work exceeds this, the mix may be extended by using PROCRETE 1000 mortar aggregate. After mixing add up to 25lbs. of aggregate to each 50 lb. unit of PROCRETE. Mix for one minute. After placing the first lift, score the surface to provide sufficient mechanical grab for the next lift.

**YIELD:**

PROCRETE 1000 OPB will yield approximately 0.4 cu.ft. per 50lb bag.

**COVERAGE RATE:** PROCRETE 1000 OPB will cover 6.25 sq.ft. (.58m) 2 at thickness of 1”

**SPECIAL NOTES:**

- Apply only to a clean, sound properly prepared substrate
- Minimum ambient and surface temperatures should be 45° F (7° C) at the time of application and not drop below that level for a minimum of 4 hours.
- Use clean water when mixing PROCRETE 1000 OPB
- Do not apply to a frozen surface
- Do not use admixtures or re-temper
- Do not mix more material than can be placed in 20 minutes

**TECHNICAL DATA:**

**Compressive Strength (ASTM C109)**

1hr- 1,500  
2hrs- 2,500  
1 Day- 3,500  
28 Days- 4,500 PSI

**Tensile Strength (ASTM C190)**

28 Days-600 PSI

**Flexural Strength (ASTM C348)**

1 Day-700  
28 Days-1150

**Bond Strength (ASTM D4541)**

28 Days-400 PSI

**Modulos of Elasticity (ASTM C469)**

**4.4 X 10<sup>6</sup>**

**Working Time**

30 Minutes

**PACKAGING:**

PROCRETE 1000 is available in a 50lb. bag.

**SHELF LIFE:**

When stored in original, un-opened container, one year. Rotate your stock.

**PRECAUTIONS:**

- Use only with adequate ventilation
- In case of eye contact, flush with water. Wash skin with soap and water if contact occurs. Consult a Physician
- CAUTION: Contains Portland Cement which is highly caustic
- The use of a dust mask, safety goggles and rubber gloves are recommended.