

## PENECRETE MORTAR

### DESCRIPTION

It consists of Portland cement, specially treated quartz sand and a compound of active chemicals. The active chemicals combine with the free lime and moisture present in concrete to form insoluble integral crystalline complexes. These crystalline complexes grow in the presence of water; block the capillaries of the concrete and minor shrinkage cracks, thus waterproofing it. Chemical activation begins when powder is mixed with water and may take several days to completely block the capillaries depending on ambient temperature and environmental conditions.

### RECOMMENDED FOR

Applied in conjunction with Penetron for:

- ◆ Installation of seal strips, reglets and coves at joints to assure water tightness
- ◆ Patching of tie holes and faulty construction joints
- ◆ Patching and filling of routed out cracks
- ◆ Repairing of spalled and honeycombed areas

### ADVANTAGES

- ◆ Can be applied to the positive or negative water pressure sides of a structure
- ◆ Resists strong hydrostatic pressure
- ◆ Post sealing effect of shrinkage cracks up to 1/64" (0.4mm)
- ◆ Easy to use – needs only to be mixed with water prior to application
- ◆ Not a vapor barrier, lets concrete "breathe"
- ◆ Can be skim coated or feather edged
- ◆ Can be applied to moist concrete
- ◆ Fast Setting
- ◆ Inorganic – contains no polymers
- ◆ Non-Flammable
- ◆ Resists abrasion and mechanical wear
- ◆ Freeze/thaw resistant

### PACKAGING

This product can be purchased in 50 lb (22.7 kg) bags or 55 lb (25 kg) pails.

### STORAGE

Penecrete Mortar must be stored in a dry enclosed area off the ground. Shelf life in unopened, undamaged bags is 12 months.

### DIRECTIONS FOR USE

#### Surface Preparation:

All surfaces to be patched, repaired or sealed with Penecrete Mortar must be sound.

Remove all dirt, cement laitance, form release agents, curing compounds, paints, etc. by means of wet or dry sandblasting, a high pressure water jet or other suitable mechanical means.

Surfaces must be well moistened to a dull dampness at the time of application.

Cracks should be routed out to a U-shaped configuration, approx. 3/4" (20mm) wide and a minimum of 3/4" (20mm) deep.

Tie holes should be roughened prior to filling.

Spalled and honeycombed areas must be thoroughly cleaned and chiseled back to sound concrete prior to repair.

#### Mixing:

Penecrete Mortar should be mixed with clean water to a trowelable mortar consistency.

Approximate mixing ratio (by volume) is 4½ parts powder to 1 part water.

For glove pointing add small amount of water. Mix only as much material as can be used within 25 minutes.

#### Application:

NOTE: Do not apply Penecrete Mortar at temperatures below 40°F (4°C) or to a frozen substrate. This product is not recommended for use in expansion or construction joints.

#### Cracks/Seal strips (reglets & coves):

After proper surface preparation and routing to appropriate configuration, prime areas to be patched or repaired with a slurry coat of Penetron and while "green" (tacky), fill cavity flush to surface with Penecrete Mortar in mortar consistency.

#### Spalled and honey combed areas:

Prepare surface and chisel back to sound concrete. Prime area to be repaired with a slurry coat of Penetron and while "green" (tacky), apply Penecrete Mortar in layers of 1/2" (13mm) until desired profile is obtained.

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**Note:** Penetron integral crystalline waterproofing should be applied as a surface treatment as soon as the Penecrete Mortar has set (approx. 1 – 2 hours). If this is not practical, leave surface rough for subsequent surface treatment to bond.

## TECHNICAL DATA

### Physical Data

Aggregate State	Powder
Color	Cement Grey
Bulk Density	112 lbs/ft <sup>3</sup> (1.8 kg/l)
Pot Life	30 minutes
Setting Final	Approx. 2 hrs
Potable Water	Approved

### Curing

Provide protection against extreme weather conditions during the setting period.

### Consumption & Yield of 50 lb (22.7kg) bag

	Size in (mm)	Consumption lb/ft <sup>2</sup> (kg/m <sup>2</sup> )	~Yield/bag ft (m)
Cracks, U-shaped	1x1 (25x25)	1.0 (5)	50 (15.2)
Reglets	1x1 (25x25)	1.0 (5)	50 (15.2)
Coves, triangular shaped	1.5x1.5 (38x38)	1.0 (5)	50 (15.2)
Tie Holes	1x1x1 (25x25x25)	N/A	~600 nos

**Honeycomb patching approx. 0.4 ft<sup>3</sup> (0.011 m<sup>3</sup>)/bag. All above values are approximate depending on surface conditions.**

	Compressive Strength ASTM C-109	Tensile Strength ASTM C-190
1 day	1600 psi (11 MPa)	320 psi (2.2 MPa)
3 days	2400 psi (17 MPa)	520 psi (3.6 MPa)
7 days	5800 psi (40 MPa)	730 psi (5.0 MPa)
28 days	6900 psi (48 MPa)	900 psi (6.2 MPa)

All data are average values obtained under laboratory conditions. Impractical use, temperature, humidity and absorption of the substrate may influence the above given values.

### HEALTH AND SAFETY

Refer to MSDS. For commercial use only, this product contains Portland cement and is highly alkaline. The use of rubber gloves and goggles during mixing and application is recommended. Avoid contact with eyes and skin. In case of eye contact, rinse immediately with plenty of water and seek medical advice.

### KEEP OUT OF REACH OF CHILDREN

### WARRANTY

ICS PENETRON INTERNATIONAL LTD. warrants that the products manufactured by it shall be free from material defects and will conform to formulation standards and contain all components in their proper proportion. Should any of the products be proven defective, the liability to ICS PENETRON INTERNATIONAL LTD. shall be limited to replacement of the material proven to be defective and shall in no case be liable otherwise or for incidental or consequential damages.

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