

Penecrete



DESCRIPTION: PENECRETE MORTAR™ consists of Portland cement, specially treated quartz sand and a compound of active chemicals.

RECOMMENDED FOR

- Installation of seal strips, reglets and covers at joints to assure water tightness tie and faulty
- Patching of construction joints
- Patching and filling of routed out cracks
- Repairing of spalled and honeycombed areas
- Fast setting
- Inorganic – contains no polymers
- DWI certified for use in potable Water applications.

ADVANTAGES

- Can be applied to the positive or negative water pressure sides of a structure
- Resists strong hydrostatic pressure
- Non-shrinking
- Easy to use – needs only to be mixed with water prior to application.
- Can be skim coated or feather edged
- Can be applied to moist concrete
- Non-flammable
- Resists abrasion and mechanical wear
- Freeze/thaw resistant
- Zero VOC - Penetron powdered products contain zero volatile organic compounds and are safe for use both outdoors and in confined indoor spaces.

DIRECTIONS FOR USE

Surface Preparation:

All surfaces to be patched, repaired or sealed with PENECRETE MORTAR™ must be clean and sound. **Cracks/cold joints** should be routed out to a U-shaped configuration, approximately 20 mm wide and a minimum of 20 mm deep. **Tie holes** should be roughened prior to filling. **Spalled and honeycombed** areas must be thoroughly cleaned and chiselled back to sound concrete prior to repair. Remove all dirt, cement laitance, form release agents, curing compounds, paints, coatings, etc. by means of wet or dry sandblasting, high pressure water jet or other suitable mechanical means. Surfaces must be well moistened to a dull dampness at the time of application. The concrete should be damp with no wet sheen on the surface. **Mixing:**

For routed cracks, coves and non-moving joints, add water to PENECRETE MORTAR™ until a medium stiff, trowelable consistency is reached. The texture of the mix should be pliable enough to be trowelled into the cracks with some pressure, but not so pliable that it would run out or sag out of the crack. Approximate mixing ratio (by volume) is 5 parts powder to 1-part water. Alternatively, 100 g of water to 600 g of PENECRETE MORTAR™ powder. For tie holes and pointing applications, add only a small amount of water. Mixed consistency should be that of "dry earth", holding a shape when squeezed in your hand but easily crumbled when pressed between fingers. Mix only as much material as can be used within 20 minutes.

Application:

DO NOT apply PENECRETE MORTAR™ at temperatures below 5°C, to a frozen substrate or if temperatures will drop below freezing during the curing period (approximately 24 hours). **Cracks/cold joints:** 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 honeycombed areas:** Prepare surface and chisel back to sound concrete. Apply PENECRETE MORTAR™ in layers of 13 mm not to exceed 65 mm. Each layer should be allowed to set long enough that it will leave only a slight indent when pressed with a finger. Where possible, the surface of the repair should be packed tightly using a hammer and block of wood. **Tie holes and pointing applications:** Prepare surface and chisel back to sound concrete. Prime area to be repaired with a slurry coat of PENETRON® and while still "green" (tacky) apply PENECRETE MORTAR™ in "dry earth" consistency. PENECRETE MORTAR™ should be tightly rodded into tie holes or packed tightly using a hammer and block of wood.

NOTE: For all applications, PENETRON® should be applied as a surface treatment as soon as PENECECRETE MORTAR™ has set (approximately 1-2 hours). If this is not practical, leave surface rough for subsequent surface treatment to bond.

Curing:

Provide protection against extreme weather conditions such as heavy rain or freezing conditions during the setting period. Curing is not normally required except during hot, low humidity weather. In these conditions a light mist of water approximately 24 hours after the repair is completed will help to ensure a controlled cure. In extreme dry heat, water misting may be required more frequently.

SPECIAL CONSIDERATIONS:

DO NOT apply PENECECRETE MORTAR™ at temperatures below 5°C, to a frozen substrate or if temperatures will drop below freezing during the curing period (approximately 24 hours). This product is not recommended for use in expansion or construction joints. PENECECRETE MORTAR™ can be applied in 13 mm layers not exceeding 65 mm to prevent shrinkage cracks in the mortar.

CONSUMPTION & YIELD OF 25 KG Pail:

All values are approximate depending on surface conditions. Cracks, U-shaped Size 20 mm x 20 mm Consumption 1.8 kg/l.m.

PACKAGING:

Available in 25, 10, 5 kg pails

STORAGE / SHELF LIFE:

PENECECRETE MORTAR™ must be stored in a dry enclosed area off the ground at temperatures -50°C to 60°C. Shelf life when stored in proper conditions in unopened, undamaged packaging is 18 months

TECHNICAL DATA

1 Appearance/colour	: Grey powder
2 Product humidity, %, no more than	: 0.3
3 Setting time, min:	
-initial set, not earlier	:40
-final set, not earlier	:90
4 Dry bulk density, kg/m	:1260±90
5 Adhesion strength with the concrete, MPa, not less than	:2.0
6 Compressive strength, MPa	
-1 day	:20
-28 days	:25
7 Pot life, min	:30
8 Water impermeability grades, MPa, not less than	:1.4
9 Freeze-thaw resistances, F, not less than	:400
10 Ultraviolet	: No effect

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

SAFE HANDLING INFORMATION: This product contains Portland cement and is highly alkaline. The use of rubber gloves, goggles and other appropriate protective gear 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. Refer to MSDS for additional safety precautions.

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16
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EN 1504-3

PENECECRETE Concrete restoration CC mortar (based on hydraulic cement)
EN1504-3 R3

Compressive strength	: ≥ 25 N/mm ²
Chloride content	: ≤ 0,05%
Capillary water absorption	: ≤ 0,5 kg/(m ² ·h ^{0,5})
Adhesion strength	: ≥1,5 N/mm ²
Carbonation resistance	: class R3
Elastic Modulus	: class R3
Corrosion behavior	: contains components only listed in EN 934-1:2008, Annex A.1.
Dangerous substance's	: no
Reaction to fire	: Euro class A

WARRANTY: PENETRON INTERNATIONAL LTD. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED: User shall determine the suitability of the product for intended use and assume risks and liability connection therewith.

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