

### DESCRIPTION

PENETRON WATERPLUG is ready-mixed, highly accelerated underwater cement, scientifically designed for quick repair work of concrete subject to hydrostatic pressure, active leaks or underwater conditions. PENETRON WATERPLUG sets quickly while bonding to the surface and expanding to rapidly block the flow of water in a few minutes after application. Use as a permanent patching material above or below grade. PENETRON WATERPLUG's super-fast setting, non-shrink and high-bonding properties make it an excellent mortar for anchoring ornamental iron, bolts, posts and dowels. PENETRON WATERPLUG expands slightly to grip the surface of the embedded item and fill every crevice of the concrete cavity.

### RECOMMENDED FOR

PENETRON WATERPLUG can be used as a patching material at temperatures below 32°F (0°C). At these temperatures, any other patching materials are unusable or require expensive and timeconsuming attention. The catalytic reaction which produces the highly accelerated setting time generates enough heat to assure a secure surface bond. Use PENETRON WATERPLUG for below freezing repairs of roadways, bridge decks, cold storage rooms etc.

Properly applied, PENETRON WATERPLUG will provide permanent, watertight seals that will not corrode or decompose. PENETRON WATERPLUG is an excellent choice for patching, sealing or anchoring in basements, piers, dams, mines, pipes, tunnels, tanks, reservoirs, canals, swimming pools, pilings, wall and panel junctions and many other applications.

### ADVANTAGES

- ▶ Expands and sets to cut water flow immediately
- ▶ Easy to use - needs no special equipment
- ▶ Firmly anchors bolts, dowels, etc.
- ▶ Sets permanently in 3 to 6 minutes
- ▶ Excellent for low temperature patching and repair work
- ▶ Ready-mixed
- ▶ Zero VOC – Penetron powdered products contain zero volatile organic content and are safe for use both outdoors and in confined indoor spaces.

### DIRECTIONS FOR USE

**Surface Preparation:** To assure the strongest bond, surface area must be free of all potential contaminants such as oil, grease, form release agents, dust or other foreign matter. For underwater applications, surface should be free of surface film or algae. Roughen surface area with a wire brush, chisel or other similar instrument. Remove any loose or weakened concrete and mortar. If crack is less than 3/4 in. (1.9 cm) in width or depth, widen or gouge to this dimension. The best results will be attained if the inner portion of the crack is undercut so that the depth of the crack is wider than the surface opening. This creates an inner cavity that allows PENETRON WATERPLUG to expand and resist high water pressure. If the hole or crack is not leaking at the time of the repair, soak area for at least 15 minutes before applying PENETRON WATERPLUG.

**Mixing:** Mix PENETRON WATERPLUG in a clean container with fresh, uncontaminated water. Mix ratio by volume is one part water to four parts PENETRON WATERPLUG. Optimum water temperature is approximately 70°F (21°C) (warm). In harsh weather water temperature should compensate for environmental extremes. At temperatures above 100°F (38°C) mix with ice water to prevent overly-accelerated setting. At temperatures below 40°F (4°C) keep PENETRON WATERPLUG at approximately 70°F (21°C) by using warm water. Once water has been added and material has attained a putty-like texture, shape the material to a form similar to the crack or cavity about to be repaired. Use gloves. Mixing time should not exceed two minutes. Never mix more than can be used within three minutes. Do not add additional water or retemper.

#### Application:

Apply immediately after mixing. As soon as PENETRON WATERPLUG has achieved a dry, putty texture and a compatible shape, force the material into the crack or cavity compressing it firmly using a gloved palm, trowel, wood block or other flat object. Hold it in place for over a minute. If there is a strong water flow hold for six minutes. Do not brush or trowel over surface. Shave off excess material with a knife or other similar sharp tool. For long, leaking vertical cracks, patch with successive small amounts of PENETRON WATERPLUG starting at the top of the crack. For anchoring bolts, posts, dowels, etc., drill a hole deep enough to allow 1/2 in (13 mm) around fixture, mix to a putty consistency and fill hole. Then tap object firmly into place. Keep damp for 15 minutes. Do not apply excessive pressure for several hours.

#### PACKAGING

Available in 50 lb (22.7 kg) bags or 55 lb (25 kg) pails. Also can be supplied in small pails (4.75 kg and 9.5 kg).

#### WARRANTY

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 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. **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 its intended use and assume all risks and liability in connection therewith.

#### STORAGE / SHELF LIFE

Penetron WATERPLUG must be stored in a dry enclosed area off the ground at a minimum temperature of 45°F (7°C). Shelf life when stored in proper conditions in unopened, undamaged packaging is 12 months.

#### SAFE HANDLING INFORMATION

Refer to MSDS. For commercial use only, 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.



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II  
WATERPLUG

for structural and non-structural protection  
and repair of concrete structures

Compressive strength:

Class R3 ( $\geq 25$  MPa)

Chloride content:  $< 0,05$  % by mass

Adhesive bond: NPD

Restrained shrinkage, expanding: NPD

Elastic modulus: NPD

Thermal compatibility (Part I): NPD

Corrosion behaviour: deemed to have  
no corrosive effect

Dangerous substances: NPD

Reaction to fire: NPD