

## CRYSTALLINE WATERPROOFING RAPID SET WATERPLUG

**DESCRIPTION**

PENEPLUG® is a rapid setting, integral crystalline cementitious waterstop designed to stop active water leaks and moisture ingress. Unlike conventional waterplugs, the crystalline complexes grow in the presence of water and migrate to the surrounding areas of the initial application; block the capillaries of the concrete and minor shrinkage cracks, thus waterproofing the repaired surface and the area around it.

**RECOMMENDED FOR**

PENEPLUG® can be used internally or externally as a waterproof plugging mortar or where rapid setting and early strength gain is required.

- ▶ Plugging/stopping active water leaks
- ▶ Sealing of leaking joints, form tie holes or cracks

PENEPLUG® can be used on the following substrates:

- ▶ Concrete
- ▶ Masonry
- ▶ Earthenware
- ▶ Stone

**ADVANTAGES**

- ▶ Stops water flow
- ▶ Sets in approximately 30 seconds after mixing
- ▶ Durable
- ▶ Can be used underwater
- ▶ Can be mixed with water or used dry
- ▶ Easy to apply
- ▶ Packaged in easy to use, re-sealable containers
- ▶ Zero VOC – PENETRON® powdered products contain zero volatile organic compounds and are safe for use both outdoors and in confined indoor spaces
- ▶ Crystalline complexes waterproofing the repaired surface and the area around it

**TECHNICAL CHARACTERISTICS**

<i>Type</i>	Rapid set cementitious base powder
<i>Color</i>	Cement grey
<i>Bulk density</i>	75 lbs/ft <sup>3</sup> (1.2 kg/Lt)
<i>Temperature</i>	32 to 77 °F (0 to 25 °C) (water and surface temperature)
<i>Setting final</i>	30 minutes

**DIRECTIONS FOR USE**

**Surface Preparation:** The substrate must be clean, sound and free of any surface contamination, such as oils, coatings, paints, dirt, etc. Leaking areas must be cut back to sound material, leaving an appropriate chase for receiving PENEPLUG®.

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**Mixing:** Setting time is dependent largely on the amount of mixing water used. PENEPLUG® must be added to the water and mixed quickly. The mix should have a dry pack (dry earth) consistency, holding a shape when squeezed in your hand but easily crumbled when pressed with fingers. Mixing time is about 15 seconds with setting occurring about 30 seconds later. In cold weather, use lukewarm water. In higher temperatures, use cold water.

To avoid waste, only small quantities of PENEPLUG® should be mixed.

**Mixing ratios:** Standard mix ratio at 68 °F (20 °C) is 2.5 lb (1 kg) PENEPLUG® and approximately 1 cup (0.25 Lt) of water.

**Application:** After mixing, apply PENEPLUG® to the appropriate area immediately. Material should be formed into a wedge and forced into the leak. This can be accomplished with the use of a block of wood and hammer. Work the plug well into the area and then, applying as much pressure as possible, hold firmly in place for about 30 seconds or until set. After the leak has stopped, fill the remaining void to the surface with PENECRETE MORTAR®. Remove excess material. After lightly pre-wetting, apply a final coat of PENETRON® to the repaired area.

In certain circumstances PENEPLUG® may be applied as a dry powder. After preparing the surface as described above, place and hold the powder directly over the leak for 30-60 seconds.

**PACKAGING**

PENEPLUG® can be purchased in 40 lb (18 kg) bags and 9 lb (4 kg) or 55 lb (25 kg) pails.

**STORAGE / SHELF LIFE**

PENEPLUG® should be stored dry at a minimum temperature of 45 °F (7 °C). When properly stored in a dry cool place in unopened and undamaged original packaging, shelf life is 12 months.

**SAFE HANDLING INFORMATION**

PENEPLUG® contains cement which is alkaline. Will irritate eyes and skin and may cause skin sensitization. Wear appropriate eye, skin and breathing protection when using this product. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. For further information please refer to Safety Data Sheet. PENETRON HELLAS S.A. has recently updated Safety Data Sheet on the safe use of PENETRON® products. Each Safety Data Sheet contains health and safety information for the protection of your employees and your customers. KEEP OUT OF REACH OF CHILDREN

**WARRANTY – DISCLAIMER**

PENETRON HELLAS S.A. warrants that its products are manufactured under certified ISO Standard procedures, are of excellent quality and shall be free from material defects and contain all components in their proper proportion. Should any of the products be proven defective, the liability to PENETRON HELLAS S.A. shall be limited to replacement of the material proven to be defective, since the standard application procedures have been met and the suitability of the product for the particular application have been proven. PENETRON HELLAS S.A. makes no warranty as to merchantability of fitness for a particular purpose. User, after contacting the distributor of the product, shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. While every care has been taken, the information provided in this product's data sheet make no part of any contract. All recommendations, technical data and test data contained in this product's data sheet are based upon the results of control laboratory tests or in actual field tests. However, PENETRON HELLAS S.A. makes no warranty of any kind, concerning this data. In any case, this data are given in good faith based in the PENETRON HELLAS S.A. experience, till the publication of this sheet. Due to variance in storage, handling and applications of the materials, PENETRON HELLAS S.A. accepts no liability for the results obtained. It is suggested that potential users try small applications to determine the suitability of each individual product for their specific requirements. The users should always refer to the most recent edition of the product's data sheet. PENETRON HELLAS S.A. may particularly differentiate its versions of the product's data sheet compared with those of PENETRON INTERNATIONAL LTD or respective PENETRON companies worldwide. These changes are due to text formatting, different application weathering and procedures or different product names and aim at the optimal consumer information.

**CERTIFICATION**

1085-CPR-0040

EN 1504-3

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PENEPLUG

Products and systems 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 (Part1): NPD  
 Corrosion behaviour: deemed to have no corrosive effect  
 Reaction to fire: NPD  
 Dangerous substances: NPD

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