

REACTIVE PENETRATING CONCRETE SEALER

DESCRIPTION

PENESEAL PRO™ (RTU) is a ready-to-use (RTU: Ready To Use), spray applied liquid sealer which forms a sub-surface barrier that protects concrete against water penetration and seals hairline cracks up to 1/12 in (2 mm) in thickness. It is applied on surfaces exposed to heat stress. When sprayed onto a thoroughly cleansed concrete surface, it will react with the calcium hydroxide of the concrete to form a sub-surface gel. This gel seals the pores, capillaries and cracks. As long as water is present, the product will remain active and seal future hairline cracks, while protects the concrete against contamination, water and chloride ingress. For below ground projects, Penetron is the proven system of choice.

RECOMMENDED FOR

- ▶ Concrete roofs
- ▶ Podium decks, bridge decks
- ▶ Terraces
- ▶ Traffic bearing structures, runways, and driveways
- ▶ wherever concrete is directly exposed to the elements and considerable thermal stress can be expected

ADVANTAGES

- ▶ Protects against water, chloride and sulphate ingress; increases resistance to chemical attack and carbonation; PENESEAL PRO™ is not to be used in areas where strong acid or alkali attack can be expected
- ▶ Sub-surface nature does not affect the adhesion of subsequent products
- ▶ Increases surface hardness, approximately 13/16 in (20.6 mm depth), to 8 on Moh's scale
- ▶ Simple, fast and economical application compared to alternative membrane systems
- ▶ Trafficable within 6 hours after first water curing without affecting protection. The product will not peel or scratch and the treated surfaces can be polished. No negative screed necessary
- ▶ Non toxic - can be applied to potable water containing structures
- ▶ Ease of repair - if large cracks continue to be present or re-appear during the life of the structure they are easy to find and fix; no tedious lifting and removal of membrane to find the cracks is necessary

TECHNICAL CHARACTERISTICS

<i>Color</i>	Transparent
<i>Specific gravity</i>	70 lb/ft ³ (1.12 kg/Lt)
<i>Toxicity</i>	Non-toxic and biodegradable
<i>Flammability</i>	Non-explosive, non-flammable
<i>Ill effects</i>	No known ill effects if swallowed

DIRECTIONS FOR USE

Surface Preparation: Remove all coatings, form oils, curing or sealing agents through chemical or mechanical means. Remove dust, dirt, laitance or any other contaminates, by sweeping all areas to be treated with a fine bristle broom or scrub brush. Substrate temperature must be between 41 – 95 °F (5 – 35 °C). In case of new concrete, surfaces must be 14 days (28 days is recommended), after deforming and must be clean and free of dust (not wet).

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Application: Flood all cracks with PENESEAL PRO™ at approximately 1 quart per 15 feet (1 liter per 5 linear meters). Apply the product to the surface to be treated at the recommended coverage rate. Spray the product at low pressure and in low wind conditions. When surface is dry to the touch (2-6 hours after application), flood the surface with abundant water. If it rains before the product is dry, a second application is required once the surface is dry. Twenty-four (24) hours later, flood the surface with abundant water again. Another 24 hours later, flood the surface with abundant water again. After third flooding, the treated area can be ponded to verify the waterproofing performance.

NOTE: The product can be applied, using simple hand spraying equipment for small areas to motorized spray units for large projects. With a simple backpack spray unit, coverage of 120-180 yd² (100-151 m²) per hour can be achieved. After application, all equipment should be thoroughly cleaned with water. Contact PENETRON HELLAS for further details on spraying equipment.

COVERAGE

1 quart to 45-65 ft² (1 Lt to 4-6 m²)

- 45 ft² (4 m²) for rough and porous surfaces
- 65 ft² (6 m²) for very smooth, dense surfaces
- 55 ft² (5 m²) for normal surfaces

Cracks: additional 1 quart per 15 feet (1 liter per 5 linear meters).

SPECIAL CONSIDERATIONS

PENESEAL PRO™ is not suitable for the repair of structural or design cracks. For cold joints, expansion joints, penetrations and pour joints, appropriate joint treatment products such as PENECRETE MORTAR™, waterstops, elastomeric sealants, etc., need to be applied in addition to the PENESEAL PRO™ treatment.

In case the main purpose of application is floor hardening, use PENESEAL FH™ instead.

PENESEAL PRO™ should not be used for negative side waterproofing. PENETRON® should be used for this application.

PENESEAL PRO™ can be used on concrete that contains fly ash, slag or silica fume, as long as these ingredients do not exceed 30% of the total cementitious materials in the concrete mix. To ascertain suitability, execute a trial on a small area or obtain concrete mix design from supplier. To increase suitability of such concrete, a calcium treatment may be applied to the surface. This can also be done to increase effectiveness on old and heavily carbonated concrete.

DO NOT spray PENESEAL PRO™ onto glass, aluminum, wood or painted surfaces. In case this happens, remove the product with water.

Recommended tools are low-pressure sprayer, soft bristle broom, squeegee, and water hose. After application all equipment should be thoroughly cleaned with water.

Contact your PENETRON HELLAS for details. PENESEAL PRO™ should not be used as a replacement or a solution for poor design, detailing and workmanship.

PACKAGING

PENESEAL PRO™ is available in 5 gallon (19 Lt) pails.

STORAGE / SHELF LIFE

Storage life is 2 years when stored in sealed drums. Keep pails closed and avoid exposure to heat and direct sunlight. Do not allow to freeze.

SAFE HANDLING INFORMATION

Avoid skin and eye contact. If contact is made, flush areas with lots of water and seek medical advice. Protective gloves should be worn. Breathing apparatus is advised if applied in enclosed environments. For further information please refer to Material Safety Data Sheet. **KEEP OUT OF REACH OF CHILDREN.**



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PENESEAL PRO

Impregnation for protection and repair of concrete structures

- [Protection against penetration Class 1.2 (I) and Increasing of physical resistance Class 5.2 (I)]
- Abrasion resistance: ≥ 30% improvement
- Capillary water absorption: Class II
- Impact strength: Class III (≥ 20 Nm)
- Bond strength by pull-off: ≥ 0.8 N/mm²
- Penetration depth: ≥ 5 mm

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