

ICS/PENETRON INTERNATIONAL LTD.

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PENETRON PLUS

SPECIFICATIONS: PENETRON PLUS

DESCRIPTION

Penetron Plus is a unique chemical treatment for the waterproofing and protection of concrete. Penetron Plus is a special formulation designed specifically for a dry-shake application on horizontal concrete surfaces where greater resistance to impact and abrasion is required. Packaged in the form of a dry powder compound, Penetron Plus consists of Portland cement, various active proprietary chemicals, and a synthetic aggregate hardener that has been crushed and graded to particle sizes suitable for concrete floors. Penetron Plus becomes an integral part of the concrete surface thereby eliminating problems normally associated with coatings (e.g. scaling, dusting, flaking and delamination), The active chemicals react with the moisture of the fresh concrete causing a catalytic reaction which generates a non-soluble crystalline formation within the pores and capillary tracts of the concrete.

RECOMMENDED FOR

- Sewage and Water Treatment Plants
- Traffic Bearing Surfaces
- Warehouse Floors
- Foundation Slabs
- Below-grade
- Parking Structures

ADVANTAGES

- Resists extremely hydrostatic pressure from either positive or negative surface of the concrete slab
- Becomes an integral part of the substrate
- Highly resistant to aggressive chemicals
- Can seal hairline cracks up to 0.4mm
- Allows concrete to breath
- Non-toxic
- Less costly to apply than most other methods
- Permanent

- Increases flexibility in the construction schedule

PACKAGING

Penetron Plus is packaged in 18 kg bags and 25 kg pails.

STORAGE

Penetron products must be stored dry at a minimum temperature of 7°C. Shelf life is one year when stores under proper conditions.

COVERAGE

Under normal conditions, the coverage rate for Penetron Plus is 0.5 kg. depending on the degree of abrasion resistance required.

Note: Under heavy traffic conditions or where even greater abrasion resistance is required, consult a Penetron Technical Representative for a recommendation that meets your specific needs.

APPLICATION PROCEDURES

Fresh concrete is placed, consolidated and leveled.

Wait until concrete can be walked on leaving an indentation of 6.5 mm – 9.5 mm. Concrete should be free of bleed water and be able to support the weight of a power trowel. Then, float open the surface.

Immediately after floating open the surface, apply one-half of the dry shake material by hand or mechanical spreader. The dry shake material must be spread evenly.

As soon as the dry shake material has absorbed moisture from the base slab, it should be power floated to the surface.

Immediately after power floating, apply remaining dry shake material at right angles to the first application.

Allow remaining dry shake material to absorb moisture from the base slab and then power float the material into the surface.

When concrete has hardened sufficiently, power trowel surface to the required finish.

CURING

Curing is important and should begin as soon as final set has occurred but before surface starts to dry. Conventional moist curing procedures such as water spray, wet burlap or plastic covers may be used. Curing should continue for at least 48 hours. In hot, dry sunny conditions consult manufacturer for specific instructions. In lieu of moist curing, concrete sealers and curing compounds meeting ASTM C-309 may be used.

Note: It is common that edges of a slab wall will set up earlier than the main body of concrete. Such edge areas can be dry-shacked and finished with hand tools prior to proceeding with application of main body of concrete.

For the best results when applying dry shake materials, the air content of the concrete should not exceed 3% (a high air content can make it difficult to achieve a proper application). If a high entrained air content is specified (e.g. for concrete that will be exposed to freezing and thawing), contact the Technical Department of Penetron International Ltd. for further application information.

In hot, dry, or windy conditions it is advisable to use an evaporation retardant on the fresh concrete surface to prevent premature drying of the slab.

Chronic moving cracks or joints will require a suitable flexible sealant.

For certain concrete mix designs, we recommend a test panel be produced and

evaluated for finishing. For example, high performance concrete with a low water/cement ratio, air entrainment, super plasticizers, or silica fume may reduce bleed water and make the concrete more difficult to finish.

TECHNICAL SERVICES

For more instructions, alternative application methods, or information concerning the compatibility of the Penetron treatment with other products or technologies, contact the Technical Department of Penetron International Ltd. or your local Penetron representative.

SAFE HANDLING INFORMATION

Penetron is alkaline. As a cementitious powder or mixture, Penetron may cause significant skin and eye irritation. Directions for treating these problems are clearly detailed on all Penetron pails and packaging. Comprehensive and up-to-date Material Safety Data Sheets are maintained on all Penetron products. Each sheet contains health and safety information for the protection of your employees and customers. Contact ICS/Penetron International Ltd. or your local Penetron representative to obtain copies of Material Safety Data Sheets prior to product storage or use.

WARRANTY

ICS/Penetron International, Ltd. warrants that the products manufactured by it shall be free from material defects and will be consistent with its normal high quality. Should any of the products be proven defective, the liability of the manufacturer shall be limited to the replacement of the product ex-factory. The Manufacturer makes no warranty as to the merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties expressed or implied. The user shall determine the suitability of the product for his intended use and assume all risks and liability in connection herewith.