

ACID-ACTIVATED COATING SPECIFICALLY DESIGNED FOR ANAEROBIC CONDITIONS

DESCRIPTION

PENETRON ARC is an active mineral, protective coating, specifically formulated for anaerobic conditions. PENETRON ARC is applied to concrete surfaces where anaerobic conditions exist and produce strong acids in the gas-zone. The strong acids, in particular Sulfuric Acid, chemically react with the PENETRON ARC to convert the coating into a dense acid resistant shell which will protect and prolong the life of the concrete substrate.

RECOMMENDED FOR

Typical areas of application are:

- ▶ Sewage treatment facilities
- ▶ Operations using Sulfuric Acid baths
- ▶ Precast sewage pipes

ADVANTAGES

- ▶ Mild acids evolved in sewage and waste treatment increase the acid resistance abilities of PENETRON ARC.
- ▶ Provides protection from acids created during anaerobic or biogas activities.

DIRECTIONS FOR USE

Surface Preparation: All concrete to be treated with PENETRON ARC must be clean and have minimum surface CSP (Concrete Surface Profile) of 3-4, meeting ACI standards. Remove laitance, dirt, grease, etc. by means of high-pressure water jetting, wet sandblasting or wire brushing. Faulty concrete in the form of cracks, honeycombing, etc. must be chased out, and filled flush with a combination of PENETRON® and PENECRETE MORTAR®. Surfaces must be carefully watered to SSD (Saturated Surface Dry) prior to the application of PENETRON ARC. The concrete surface must be damp but with no wet sheen on the surface.

Mixing: Mechanically mix PENETRON ARC in a ratio of 18 kg (40 lb) of Part A (Powder) to 5,5 L (1,5 gal) of Part B (Liquid). Mix only as much as can be applied in 30 minutes. Mix for 3 minutes and adjust consistency for brush or spray application by adding up to 100 ml of water per 6 kg of the Part A (Powder) initially mixed. Continue mixing for an additional 2 minutes and if the consistency needs further adjustment add up to 50 ml of water and continue mixing for an additional minute. DO NOT ADD any more than the 150 ml of water per 6 kg of the Part A (Powder) that was initially mixed. To maintain fluidity, the material should be lightly agitated periodically. If the sand begins to segregate from the mix after adjusting the fluidity, then too much water was added, and the mix should not be used.

Application: PENETRON ARC should be applied in 2 coats with the second coat applied perpendicular to the first coat, while the first coat is still green, approximately 1-2 hours. One complete kit of PENETRON ARC applied in 2 coats should have a total coverage of 11-12 m² (118,4 – 129,2 ft²). Due to the unique nature of the mineral components in PENETRON ARC, the second coat will chemically bond to the previous coat in the same way the first coat chemically bonds to the concrete substrate. Clean excess material from the brush in between batches of material. Due to PENETRON ARC's short pot-life, the use of a hopper gun is recommended for application. After application, the PENETRON ARC should be wet cured for the first 48 hours, the same way as normal concrete curing.

NOTE: Frequently stir mixture during application.

CLEAN UP

Use clean water to clean all tools, immediately after use.

COVERAGE

The total coverage of 1 kit (18 kg (40 lb) Part A and 5,5 L (1,5 gal) Part B) of PENETRON ARC would be 11-12 m² (118,4 – 129,2 ft²).

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SPECIAL CONSIDERATIONS

Do not apply PENETRON ARC at or below freezing temperature or to freezing surfaces.

Protect surfaces treated with PENETRON ARC from direct sun, wind and freezing temperatures for at least 24 hours.

Mix only as much PENETRON ARC as can be applied in 30 minutes.

High temperatures will decrease this working time. When working with elevated temperatures make sure material is stored in a cool area prior to application and use cold water for the initial mix.

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PENETRON ARC can be applied over other cementitious coatings, such as PENETRON, PENECECRETE MORTAR, etc., provided these coatings are well bonded to the substrate, have the appropriate surface profile, and all laitance or loose material has been removed prior to application.

Contact PENETRON HELLAS S.A. for additional information, regarding your project.

PACKAGING

Part A (Powder) is available in 18 Kg (40 lb) bags.
Part B (Liquid) is available in 5,5 L (1,5 gal).

STORAGE / SHELF LIFE

PENETRON ARC must be stored must be stored in a cool and dry place, unexposed to moisture and sunlight at a minimum temperature of 7°C (45°F). Shelf life is one year, when stored under proper conditions. Always tightly reseal PENETRON ARC Part B (Liquid) container after use and DO NOT ALLOW TO FREEZE!

SAFE HANDLING INFORMATION

Avoid skin and eye contact. If contact is made, flush areas with plenty of water and seek medical advice. Protective gloves, mask and goggles should be worn. 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.

CERTIFICATION



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1305-CPR-1390

DOP NO: 10.13001D040621-07

EN 1504-2

PENETRON ARC

Coating for Chemical Resistance for Protection and Repair of Concrete Structures

Resistance to Severe Chemical Attack:

20% H₂SO₄ solution

Class II: 28 days without pressure

Adhesion Strength by Pull-Off: ≥ 1.0 N/mm²

Dangerous substances: NONE

Reaction to fire: Class E

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 is 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.

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