

PENETRON ARC

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.

APPLICATIONS

Sewage treatment facilities
Precast sewage pipes
Operations using mild Sulfuric Acid baths

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 a minimum 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, honey-combing, 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

Clean all tools and equipment with clean water.

SPECIAL CONSIDERATIONS

- Do not apply PENETRON ARC at or below freezing temperatures 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.
- PENETRON ARC can be applied over other cementitious coatings, such as PENETRON, PENECRETE 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 your Penetron representative to review applicability and for guidance on the specific products being proposed.

PACKAGING

Part A (Powder): 18-kg (40-lb) bags; Part B (Liquid): 5.5-l (1.5-gal) pails.

STORAGE/SHELF LIFE

PENETRON ARC 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!

TECHNICAL SERVICES

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

SAFE HANDLING INFORMATION

Keep out of reach of children. Prolonged contact may be irritating to skin and eyes. If contact is made, flush areas with plenty of water and seek medical attention. Protective gloves, mask and goggles should be worn. Refer to SDS before handling this product.



Penetron ARC-20.07
EN 1504-2

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PENETRON ARC

Coating for Protection of Concrete Structures

Resistance to Severe Chemical Attack: Class II (28 days without pressure) - ongoing

Adhesion Strength by pull off test (where relevant): ≥ 1.0 MPa

Reaction to fire: Class A1 (pending determination of the organic content)

Dangerous substances: No dangerous substances

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 PENETRON INTERNATIONAL, LTD. 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.

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