

Applied Technologies

Installation Guidelines

Acricoat WB is a high solids, V.O.C. compliant, concrete curing and sealing compound. This state-of-the-art proprietary formulation completely resists discoloration from ultraviolet light exposure, creating a glossy membrane which remains clear throughout its service life.

03 39 00 CONCRETE CURING & SEALING, Subsection LIQUID SURFACE DENSIFIERS

1.0 General

1.1 Scope

This specification covers the performance characteristics and application procedures for providing a V.O.C. compliant, high solids, concrete curing and sealing compound which resists discoloration from ultraviolet light exposure, creating a glossy membrane which remains clear throughout its service life, and may be tinted.

1.2 Material Description

The V.O.C. compliant, high solids concrete curing and sealing compound shall be formulated for use on horizontal or vertical concrete surfaces, architectural concrete, precast, formed and poured structures, and slabs on grade.

1.3 Typical Applications

- A. Horizontal or vertical concrete surfaces, architectural concrete, precast, formed and poured structures, slabs on grade
- B. Cure, seal and harden freshly poured concrete; seal and dustproof existing concrete
- C. Residential, commercial and light industrial applications
- D. Enhance color and provide uniform appearance of dry shake hardened floors
- E. Parking structures, plazas, driveways, patios and sidewalks
- F. Schools, shopping centers and malls, sports complexes

1.4 Limitations

- A. Acricoat WB should not be used on surfaces to receive concrete overlays or toppings.
- B. Always test for compatibility, penetration and adhesion.
- C. Do not use as a bond breaker for tilt wall construction or on surfaces requiring rubbing.
- D. Do not apply Acricoat WB to joints or channels scheduled to receive elastomeric caulks.

E. Do not use if ambient or surface temperature is below 40° F./4° C. For best results, condition material to 50° F./10° C. prior to application.

F. Quality curing or sealing compounds and floor treatments may darken or highlight the subtle color variations naturally present in concrete. When the difference in shading caused by absorptive deviation or finishing techniques is objectionable, consult Applied Technologies technical staff prior to concrete placement for recommendations.

1.5 Quality Assurance

The repair contractor shall have experience and proficiency specific to the repair type and shall be approved by the engineer and the material supplier. The material supplier shall provide job service as required to assure proper handling and installation of materials. The field representative shall instruct as needed to assure that handling, mixing, placing and finishing of materials are in accordance with specifications.

1.6 Delivery, Storage and Handling

The product shall be delivered in the original, unopened containers. It shall be labeled with the manufacturer's name, product name and lot number. Materials should be stored at the job site under dry conditions and at a temperature of 40°F (4°C) to 90°F (32°C).

1.7 Environmental Requirements

All materials used for the repair work shall be VOC compliant. The manufacturer shall supply the appropriate material safety data sheets upon request.

1.8 Site Conditions

Coverage is dependent upon surface texture and porosity

2.0 Materials

2.1 Approved Materials and Manufacturers

2.1.1 Product Standard

Acricoat WB, as manufactured by Applied Technologies, P O Box 18476 Fairfield, OH 45018, is considered to conform to the requirements of this specification and shall be the curing compound. Acricoat WB is a V.O.C. compliant, high solids, concrete curing and sealing compound which resists discoloration from ultraviolet light exposure, creating a glossy membrane which remains clear throughout its service life, and may be tinted.

2.1.2 Substitutions

No submittals for substitutions will be accepted after the bid date. All submittals must be made in writing to the engineer with supporting technical data sheets and test data showing complete equivalent performance.

2.2 Packaging/Coverage/Estimating

2.2.1 Packaging

A. Acricoat WB is available in 5 U.S.gallon/18.9 liter metal pails, shipped 36 per pallet shrink-wrapped and 55 U.S. gallon/208 liter drums, shipped 4 per pallet.

2.2.2 Coverage/Estimating:

A. Coverage is dependent upon surface texture and porosity

B. Curing 300-400 Ft.² /gal 7-10 M² /L

C. Sealing, hardening and dustproofing:

1. First coat 300 -400 Ft.2 /gal 7-10 M² /L

2. Second coat 400 -600 Ft.2 /gal 7-15 M² /L

2.2.3 Storage:

Do not allow to freeze. Store tightly sealed containers in cool, dry area. Shelf life is one year from date of manufacture.

2.3 Engineering Properties

The following engineering properties shall be typical of material performance when tested under laboratory conditions at 72°F (22.2°C).

2.3.1 Plastic Properties

2.3.1.1 Solids: 25% minimum

2.3.1.2 V.O.C. content: 685 gm/L

2.3.1.3 Moisture retention (ASTM C-156): 0.035 gms/cm²

2.3.1.4 Flash point: None

2.3.1.5 Drying time @ 70° F./21° C. and 50% relative humidity:

1. Dust free 45 minutes

2. Hard film 2 hours

3. Light foot traffic 8 hours

4. Maximum hardness 7 days

2.4 Accessory Materials as manufactured by Applied Technologies, P O Box 18476 Fairfield, OH 45018 is considered to conform to the requirements of this specification.

3.0 Execution

3.1 References

- A. ASTM C-1315, Type I & II, Class A, Standard Specification For Liquid Membrane-Forming Compounds for Curing and Sealing Concrete
- B. ASTM C-309, Types I or II, Class A and B, Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
- C. AASHTO M-148, Type 1 & 1D, Class A & B
- D. Complies with National Volatile Organic Compound Emission Standards for Architectural Coatings, Federal EPA Regulation 40 CFR Part 59
- E. V.O.C. Content 82 gm/L
- F. USDA approved, when cured, for incidental contact

3.2 Mixing:

- A. Do not dilute. Clear Acricoat WB is packaged ready to use and only requires stirring or agitation prior to use.

3.3 Application:

- A. Use a short nap roller or a low pressure, solvent resistant airless sprayer equipped with a fan nozzle.
- B. Hold sprayer tip 6-8 in./15-20 cm from the surface of the concrete. Apply uniformly leaving no pinholes or gaps.

3.4 Curing:

- A. Apply Acricoat WB after all bleed water has dissipated and application will not mar surface.
- B. The optional second coat is applied at right angles to first coat enhancing moisture retention while providing additional protection from deicing chemicals, oils and greases.
- C. FORMED CONCRETE WALLS: If walls are not to receive further treatment, apply immediately after stripping forms or after rubbing procedures at a rate of 450 Ft.²/gal 11 M² /L.
- D. IN-PLACE CONCRETE: Clean thoroughly with detergent and high pressure water removing any dirt, dust, curing or sealing membranes, paints, oil, grease or other contaminants that prevent adhesion.
- F. MAINTENANCE: Surfaces previously sealed with Acricoat WB should be cleaned and resealed every 2-5 years, depending on exposure and traffic.

3.5 Clean-up:

Before material dries and hardens, clean tools and equipment with warm water and detergent.

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