



WATERPROOFING

Barricoat®

Description

Barricoat is a water-borne asphalt emulsion modified with a blend of synthetic polymers and special additives. Barricoat can be applied through co-spray, 1-part spray or roller application to achieve a nominal 0.060-inch (60 mils) dry film thickness membrane.

Barricoat is a waterproofing and vapor barrier membrane for use in below-grade foundation wall assemblies. Barricoat is for use on vertical surfaces and can be applied directly to concrete, concrete masonry, insulated concrete forms (XPS) and many other common building materials. Barricoat waterproofing and MiraDRAIN® drainage composite are combined for a complete, warranted foundation waterproofing system by CCW.

Features and Benefits

- Fast, seamless installation
- Inexpensive, simple equipment
- Effectively coats rough and porous surfaces
- Safe, non-flammable and low odor
- Seals around fasteners
- Co-spray applied membrane has instant resistance to rain wash-off and can be applied in cool and damp conditions
- Reliable all season application
- Can be applied to green concrete

Installation

Prior to application, mask off all adjacent surfaces to protect from overspray and drips. Verify material is within its product shelf life and freeze/thaw indicator on pallet has not broken off from exposure to freezing temperatures. Concrete shall be cured in place for a minimum of 3 days as long as the foundation wall is backfilled within 24 hours. Verify that surfaces are free of visible surface moisture, loose materials, release oils and other contaminants. These shall be removed prior to application by power washing or other suitable method. Fill form tie holes, honeycomb and voids with non-shrink grout or CCW-703 V Liqueiseal™. Grind fins and similar protrusions flush. On concrete masonry unit (CMU) construction, mortar joints shall be free of voids and struck flush and mortar droppings shall be removed from surfaces.

Installing CCW-201 & CCW-703V Liqueiseal

Apply according to instructions on product data sheet. Allow sealant to cure fully before covering with Barricoat or strips of MiraDRI 860/861.

Installing Barricoat & DCH Reinforcing Fabric

Apply approximately 30 wet mils of Barricoat to the substrate with a brush or roller. Immediately set DCH Reinforcing Fabric into Barricoat, pressing the fabric into the liquid while smoothing wrinkles with a brush or drywall knife. Lap neighboring pieces of DCH Reinforcing Fabric 2" minimum, and apply Barricoat into laps. Immediately cover fabric with a 2nd coat of Barricoat, encapsulating it. When the substrate temperature is 32°F or lower, or the ambient temperature is below 50°F, spray the top coat of Barricoat with Barricure™ solution, dispensed either from the co-spray gun with Barricoat turned off, or from a garden sprayer. Allow the detail to dry firm before spraying over with Barricoat.

Installation of MiraDRI 860/861 Strips

When the ambient or substrate temperature is below 40°F, use strips of MiraDRI 860/861 ULT and follow the cold weather installation procedure indicated on this product data sheet. Prepare the surface with CCW-702/702 LV following the instructions on product data sheet. Apply CCW-715 to damp or green concrete surfaces. Apply the contact adhesive over enough area that it extends 1" minimum beyond the edge of the installed self-adhering flashing. Cut manageable-sized pieces of self-adhering flashing from the roll using sharp knife, making square, clean cuts. Lap neighboring pieces 5" minimum and sequence the installation to provide shingled laps. Press the self-adhering flashing firmly to the substrate with a hand roller tool, especially at edges and laps. Seal over laps and cuts and around penetrating hardware with LM-800XL Mastic or CCW-201 Sealant. Allow sealants to cure prior to application of Barricoat.

Detailing Cracks and Cold Joint

Fill and cover non-moving cracks less than 1/16" with a detail coat of Barricoat. Cover cold joints and cracks 1/16" wide and greater with minimum 6"-wide DCH Reinforcing Fabric encapsulated in Barricoat or with a 6"-wide strip of MiraDRI 860/861. In addition, fill cracks exceeding 1/4" width with non-shrink grout or CCW-201 struck flush, and allow to cure before application of the fabric or membrane strips.

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Detailing Inside & Outside Corners

Cover with minimum 6"-wide DCH Reinforcing Fabric encapsulated in Barricoat or 6"-wide strip of MiraDRI 860/861.

Detailing Foundation-to-Footing Transition

Apply 12"-wide DCH Reinforcing Fabric encapsulated in Barricoat. Alternate method: fill the angle with a ¾" tooled bead of CCW-201, then cover with a 12" strip of MiraDRI 860/861.

Detailing Pipe/Conduit Penetrations

Fill the rough gap around the penetration with non-shrink grout or CCW 201 Sealant, allowing to fully cure. Wrap pipe or conduit with strips of MiraDRI 860/861, or DCH Reinforcing Fabric encapsulated in Barricoat. Reinforcement shall bear 3" minimum onto the wall and 3" minimum onto the pipe or conduit. Consult Barricoat details for more information.

Detailing Expansion Joints, Control Joints and Transitions

Fill expansion joints with a tooled bead of CCW-201 over backer rod. Cover the joint or transition with a strip of MiraDRI 860/861 and CCW Contact Adhesive. Strip shall bear 4" minimum onto solid substrate on each side of joint. Consult Barricoat details for more information.

Spraying Barricoat

Obtain full, safe access to the area and mask adjacent surfaces to protect from overspray. Verify that the product is within shelf life, as indicated on the product label. Inspect freeze indicator on the drum or tote to verify if it has been broken from exposure to freezing temperatures. Open drums or totes bearing broken freeze indicators and inspect material for sludge, particles or separation. Contact CCW Technical Service for more information on product inspection if the freeze indicator has been broken.

Co-Spray Application: Load Barricoat and Barricure into the spray system and start it up according to the instructions given in the CCW Spray Equipment Brochure. Spray product onto wall surfaces, holding the gun approximately 20" to 24" from the surface. Keep the gun pointed square to the surface while spraying surfaces from the bottom, upward. Minimum wet mil thickness by spray shall be 90 mils, measured with a comb type wet mil gauge immediately after spray and before the emulsion breaks. Apply a maximum of 80 mils wet thickness per coat

Co-Spray at Ambient Temperature below 40°F: Store Barricoat and the spray equipment in an area maintained at or above 50°F. Employ measures, such as a heated trailer drum heaters and a heat exchanger to keep the

product in drums and lines warm (ideally above 70°F) during spray. Keep the hose and gun reeled in except during spray. Maintain Barricure dilution at 4:1 ratio (Water: Barricure). Warmer product sprays, builds and cures more consistently than cold product. Do not heat product higher than 120°F.

1-Part Spray Application: Load Barricoat into the spray system and start it up according to the instructions given in the CCW Spray Equipment Brochure. Spray product onto wall surfaces, holding the gun square to the surface. Use a cross-hatch pattern to lay an even coat. Build 90 mils total wet thickness in multiple coats. Apply a maximum of 40 mils wet thickness per coat. Allow first coat to dry firm before covering with the next.

Recommended Tip Sizes for Co-Spray and 1-Part Spray Application:
High Coverage: GHD 635
Detail Coat: GHD 429

Roller Application: Apply Barricoat to surface with a medium nap paint roller at a maximum wet mil thickness of 35 mils per coat. Build 90 mils total thickness in multiple coats. Allow first coat to dry firm before covering with the next.

Provide proper coverage over opaque surfaces and details as shown in Barricoat standard drawings. Provide complete coverage over surfaces, so that there are no voids, pinholes or similar passages through membrane. Allow the membrane to dry completely before subjecting it to adhesion testing. Drying time varies with substrate, ambient temperature and humidity. Membrane is dry when it appears black and rubber-like, and feels dry when pressed.

Spraying Barricoat in Cold Weather

If the ambient or substrate temperature is 32°F or lower, incorporate these modifications to the standard procedure: Spray Barricoat in two coats at 35–40 wet mils each, allowing drying between coats. Keep drums of Barricoat and the spray equipment in an area maintained at or above 50°F, and keep the hose and gun reeled in except during spray.

Spraying Barricoat on Aerated Concrete, Green Concrete, or Concrete Containing Additives that Cause Gassing

If Barricoat tends to blister shortly after spray on the concrete substrate, incorporate these modifications to the standard procedure: Spray the surface with approximately 10 mils wet of Barricoat, with the Barricure stream shut off. Allow this "primer coat" of Barricoat to dry firm, then apply Barricoat with co-spray application, or 1-part spray application according to the standard procedure or the cold weather procedure.

Repairing Damaged Membrane

Remove damaged or loosely-adhered material. Clean existing membrane by solvent wiping with xylene or Carlisle Weathered Membrane Cleaner, allow solvents to completely flash off prior to application of Barricoat. Re-apply Barricoat over area using co-spray, 1-part spray, or roller application.

Installing MiraDRAIN over Barricoat

Allow Barricoat to dry completely. Spray CAV-GRIP adhesive over the surface of Barricoat, and press MiraDRAIN in place. Install MiraDRAIN, MiraDRAIN HC and HC connectors in accordance with MiraDRAIN Installation Guide.

Installing Protection Board V or Foam Plastic Board Insulation by Others over Barricoat

Allow Barricoat membrane to dry completely. Attach insulation to surface of membrane with CAV-GRIP or approved insulation adhesive by others. Where CAV-GRIP is used, spray adhesive over surface of Barricoat, and press insulation in place.

Installing Insulation Board & MiraDRAIN over Barricoat

CCW recommends installation of insulation over the Barricoat followed by installation of MiraDRAIN drainage composite over the insulation. Bond the insulation to Barricoat according to the aforementioned procedure. Bond MiraDRAIN to the surface of the insulation by spraying CAV-GRIP to back side of MiraDRAIN, and pressing MiraDRAIN to the surface of the insulation.

Dampproofing

Barricoat may be used as damproofing on walls and foundations. When used as a damproofing Barricoat is applied at 45 mils wet ensuring that all Barricoat limitations, substrate preparation, and application techniques outlined in this document are followed. Total thickness after full cure shall measure a minimum of 30 mils.

Limitations

- Protect from freezing during delivery, storage and handling.
- Not intended for permanent exposure. Cover within 30 days of application.
- Not compatible with silicone, coal tar, polysulfide or plasticized PVC.
- Do not apply solvent-based products over Barricoat.
- Do not use in plaza deck, planter, pond liner or other horizontal waterproofing applications.
- Do not use as a negative-side waterproofing membrane.

Storage

Store Barricoat and accessories products in a location protected from temperature extremes, precipitation, and direct sunlight. Protect Barricoat pails and drums from freezing. Shelf life of Barrocoat in original, unopened packaging, stored under these conditions, is twelve (12) months from the date of manufacture.

Packaging

Product Name	Description	Available Items
Barricoat	Asphalt emulsion waterproofing/dampproofing membrane. Co-Spray, 1-part spray or roller application.	50-gallon drum 5-gallon pail
Barricure	Chloride-free curing agent for co-spray application of Barricoat. Dilute at 4:1 ration tap water: Barricure. 1 pail treats about 3 drums.	5-gallon pail

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Typical Properties

Property	Method	Results
Color	—	Uncured: dark brown Cured: black
Volatile Organic Content	—	<70 g/L
Shelf Life	—	12 months
Percent Solids (weight)	—	62%
Coverage (Theoretical)*	—	16 sq. ft. per gallon
Co-Spray Minimum Application Temperature	—	40° F with standard procedure, 20° F with cold-weather measures
Drying time at 73° F/ 50% RH: co-spray application 65 wet mils	—	Firm cure < 5 minutes, Fully dry in 12 hours
1-part spray or roller minimum application temperature	—	40° F, ambient and substrate
Drying time at 73° F/ 50% RH: 1-part application	—	4 h for 40 mil wet coat 48 h for 65 wet mil system to dry firm
Service Temperature	—	-20° F to 149° F
UV Exposure	—	30 days maximum
Resilience	ASTM D5329	98% (recovery)
Low-Temp Flexibility	ASTM D1970	No cracking at -20° F, bent over 1" mandrel
Water Resistance to Hydrostatic Pressure Head	AATCC 127-03 mod. 22: [55 cm] column of water for 5 hours	No water leakage through membrane

*Actual coverage varies by substrate and is typically less than theoretical coverage due to substrate roughness and porosity, wind, scrap and installer skill. Measurable dry mil thickness may also be lower than theoretical, due to substrate roughness, porosity and measurement technique. On all substrates, coating shall be visibly continuous, with no pinholes. Dry thickness, measurable with a pin gauge, comb gauge or micrometer shall be a minimum of 60 dry mils.

Limited Warranty

Carlisle Coatings & Waterproofing Incorporated (Carlisle) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Carlisle materials prove to contain manufacturing defects that substantially affect their performance, Carlisle will, at its option, replace the materials or refund its purchase price. This limited warranty is the only warranty extended by Carlisle with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. Carlisle specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever. The dollar value of Carlisle's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Carlisle material in question.