



WATERPROOFING

Barricoat®-R

Description

Barricoat-R is a water-based asphalt emulsion modified with a blend of synthetic rubbers and special additives. Barricoat-R is formulated to a thick consistency, so it will hang easily on vertical surfaces at high thickness. Barricoat-R is applied by roller or brush, and air-dries to a rubber-like consistency.

Barricoat-R is often used as an accessory product in the Barricoat-S Spray-Applied Waterproofing system. Barricoat-R can also be used as the principle membrane, and by itself performs as a waterproofing membrane and vapor barrier. Barricoat-R is for use on below-grade, vertical surfaces and can be applied directly to concrete, concrete masonry, polystyrene foam insulation board and many other common building materials. Barricoat-R plus MiraDRAIN® drainage composite are combined to form a complete, warranted foundation waterproofing system by CCW.

Features and Benefits

- Creates a seamless membrane
- Effectively coats rough and porous surfaces
- Safe, non-flammable and low odor
- Seals around fasteners

Installation

Concrete shall be in place and cured a minimum of 3 days. 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 LiquiSEAL. Barricoat-R may be used to fill voids and irregularities that do not exceed ¼" depth. 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 LiquiSEAL

Apply according to instructions on product data sheet. Allow sealant to cure fully before covering with Barricoat-R or MiraDRI 860 Strips.

Installing Barricoat-R & DCH Reinforcing Fabric

Apply approximately 30 wet mils of Barricoat-R to the substrate with a brush or roller. Immediately set DCH Reinforcing Fabric or CCW-LiquiFiber into Barricoat-R, pressing the fabric into the liquid while smoothing wrinkles with a brush or drywall knife. Lap neighboring pieces of DCH Reinforcing Fabric or CCW-LiquiFiber 2" minimum, and apply Barricoat-R into laps. Immediately cover fabric with a 2nd coat of Barricoat-R, encapsulating it.

Installing MiraDRI 860 Strips

Prepare the surface with CCW-702 WB, CCW CAV-GRIP™, or CCW-702/702 LV, following the instructions on the 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 edge of installed self-adhering flashing. Cut manageable-sized pieces of self-adhering flashing from roll, using sharp knife, and 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 end laps, non-shingled laps, cuts and around penetrating hardware with LM-800XL Mastic.

Detailing Cracks and Cold Joints

Fill and cover non-moving cracks less than 1/16" with a detail coat of Barricoat-R. Cover cold joints and cracks 1/16" wide and greater with minimum 6"-wide DCH Reinforcing Fabric or CCW-LiquiFiber encapsulated in Barricoat-R or with 6"-wide MiraDRI 860/861 Strips. In addition, fill cracks exceeding ¼" width with non-shrink grout or CCW-201 struck flush, and allow the fill to cure before application of the reinforced Barricoat-R or membrane strips.

Detailing Inside & Inside Corners

Cover with 6"-wide DCH Reinforcing Fabric or CCW-LiquiFiber encapsulated in Barricoat-R or 6"-wide MiraDRI 860 Strips.

Detailing Foundation-to-Footing Transition

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

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Detailing Pipe/Conduit Penetrations

Fill the rough gap around the penetration with non-shrink grout or CCW-201. Wrap the pipe or conduit with MiraDRI 860/861 Strips, or DCH Reinforcing Fabric or CCW-LiquiFiber encapsulated in Barricoat-R. Reinforcement shall bear 3" minimum onto the wall and 3" minimum onto the pipe or conduit. Consult CCW shop drawings for more detail.

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 two, 30-wet-mil coats of Barriseal-R or with MiraDRI 860/861 Strips. Treatment shall bear 4" minimum onto each side of joint. Consult CCW shop drawings for more detail.

Applying Barricoat-R

Obtain full, safe access to area, and mask adjacent surfaces to protect from droppings or splatter. Use a medium/long nap roller to cover open surfaces and a brush or a detail roller to cover details. With roller application, apply three coats at 30 mils wet thickness each. Allow the previous coat to dry firm before applying the next. Total dry membrane thickness after full cure shall measure a minimum of 60 mils. In areas treated with DCH Reinforcing Fabric encapsulated in Barricoat-R, allow details to dry firm, and cover with minimum 30 mils wet of Barricoat-R. Provide complete coverage over surfaces, so that there are no voids, pinholes or similar passages through membrane. Allow membrane to dry completely before subjecting to inspection for water leakage and 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. Install MiraDRAIN drainage composite, Protection Board V, H, HS, insulation board by others, or Protection Fabric 200V or 300 HV over the Barricoat-R membrane before backfill.

Repairing Damaged Membrane

Remove damaged and loosely-adhered material. Clean weathered or dirty surfaces with white rag wet with xylene or toluene. Allow solvent to dry and over damaged area with three, 30-wet-mil coats of Barricoat-R extending 6" min in all directions of defect.

Installing MiraDRAIN over Barricoat-R

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

Installing Protection Board V, H or HS, Protection Fabric 200V or 300HV, or Plastic Foam Protection Board by others over Barricoat-R

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

Installing Insulation Board & MiraDRAIN over Barricoat-R

CCW recommends installation of the insulation over the Barricoat-R followed by installation of MiraDRAIN drainage composite over the insulation. Bond the insulation to Barricoat-R 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-R may be used as dampproofing on walls and foundations. When used as a dampproofing Barricoat-R is applied at 45 mils wet ensuring that all Barricoat-R 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

- Do not apply during rain or snow, or if precipitation is expected in next 16 hours.
- Do not apply if temperature is expected to drop below 32°F in the next 16 hours.
- 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-R.
- Not for use in plaza deck, planter, pond liner or other horizontal waterproofing applications.
- Not for use as a negative-side waterproofing membrane.

Warning and Hazards

Use only in areas with adequate ventilation. CCW-702, CCW-702 LV, CAV-GRIP and LM-800XL contain flammable and combustible solvents. Refer to MSDS for Barricoat-R and accessory products for important warnings and information

Storage

Store product and accessories in area protected from direct sunlight and precipitation, and away from open flames, sparks or welding. Store flammable materials in compliance with federal, state and local regulations. Store pails of Barricoat-R in an area maintained between 50°F and 90°F.

Packaging

5-gallon pails

Typical Properties

Property	Method	Results
Color	—	Un-cured: Dark brown Cured: Black
Volatile Organic Content	—	<20 g/l
Shelf Life	—	12 months
Percent Solids (weight)	—	64%
Cured Film Thickness	—	60 mils, minimum
Theoretical Coverage	—	16.75 sq ft/g
Application Temperature	—	Minimum 50°F, ambient and substrate
Drying time, 30 wet mil coat	—	2 hours on CMU substrate @ 73°F/50% RH
Drying Time @ 73°F/50% RH, 3, 30 wet mil coats applied to CMU	—	6 hours until firm 72 hours to full cure
Service Temperature	—	-20°F to 149°F
UV Exposure	—	30 days maximum
Resilience	ASTM D 3407	98% (recovery)
Low-Temp Flexibility	ASTM D 1970	No cracking at -20°F, bent over 1" mandrel
Low-Temp Crack Bridging	ASTM C 836	Pass
Extensibility over Crack after Heat Aging	ASTM C 836	Pass
Peel Adhesion (lb/in)	ASTM D 903	HDPE Film 12.2 Concrete 14.1 CMU 14.1 DensGlass® Gold 13.1
Elongation	ASTM D 412	1,000%
Water Vapor Permeance	ASTM E 96	0.02 Perm

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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.