



Barriseal-S

Spray-Applied Air & Vapor Barrier

DESCRIPTION

Barriseal-S is a water-based asphalt emulsion modified with a blend of synthetic polymers and special additives. Barriseal-S is dispensed in tandem with Barricure, a non-corrosive, chloride-free deliquescent salt solution. Barriseal-S and Barricure are applied through specialized co-spray equipment, which is provided by others and approved by Carlisle Coatings & Waterproofing, Incorporated (CCW). During spray, Barriseal-S rapidly becomes firm, tack-free and water-resistant. The product air dries to its final cured state, which is a rubber-like, fully-adhered membrane.

TYPICAL USE

Barriseal-S is an air barrier, vapor barrier and water proof membrane. It is applied to primarily-vertical surfaces in above-grade wall assemblies. Barriseal-S can be applied directly to concrete masonry, glass-faced gypsum sheathing, plywood, oriented strand board, polystyrene foam insulation board and many other common building materials.

ADVANTAGES

- Fast, seamless installation
- Inexpensive, simple equipment
- Effectively coats rough and porous surfaces
- Safe, non-flammable and low odor
- Seals around fasteners
- Instant resistance to rain wash-off
- Can be applied year-round

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 Barriseal-S

PACKAGING

Barriseal-S and Barricure are purchased separately. Note that Barricure is a REQUIRED system component. Consumption of Barricure is approximately one pail for every 3 drums of Barriseal-S, or two pails for each tote.

PRODUCT NAME	DESCRIPTION	AVAILABLE ITEMS
Barriseal-S	Spray-applied air and vapor barrier	P/N 304920 – 55-gallon drum filled with 50 gallons of product P/N 305533 – 330-gallon tote
Barricure	Chloride-free curing agent for Barriseal-S	P/N 309736 – 5-gallon pail

TECHNICAL DATA

PROPERTY	METHOD	RESULTS
Color	—	Un-cured: Dark brown Cured: Black
Volatile Organic Content	—	<20 g/L
Shelf Life	—	9 months
Percent Solids (weight)	—	63%
Theoretical Coverage	—	25 sq ft per Gallon
Application Temperature	—	Minimum 20°F, ambient and substrate
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
Air Leakage Through Assembly	ASTM E 283	<0.02 L/s*m2
Air Permeance, 40 Mil Thickness Free Film	ASTM E 2178	0.000 L/s*m2
Air Permeance, CMU Substrate	ASTM E 2178, Mod Barriseal-S at minimum 40 mils cured on CMU	0.009 L/s*m2
Water Leakage Through Assembly	ASTM E 331	No visible leaks
Wind Loading of Assembly	ASTM E 330	No de-lamination of membrane or propagation of air leakage.

INSTALLATION

Verify that surfaces are clean, sound and dry. Discontinuities from beams, structural steel and similar conditions shall be bridged with rigid material such as sheet metal or sheathing.

Surface Inspection and Preparation for Concrete Masonry Unit (CMU) Construction: Mortar joints shall be free of voids and struck flush. Mortar droppings shall be removed from ties and surfaces. Cracks or gaps exceeding 1/16" across shall be filled with non shrink grout, or with the following: Cracks or gaps up to 1/8" may be filled with Barriseal-R or LM 800 XL, while CCW-201 may be used to fill those up to 1/2" width.

Surface Inspection and Preparation for Sheathing-over-Stud Construction: Verify that sheathing is attached with proper fasteners and spacing. Broken corners and edges shall be repaired. Holes from countersunk fasteners shall be filled with Barriseal-R or LM 800 XL. Fill gaps exceeding 1/4" with CCW-201 or approved sealant by others struck flush. Provide reinforcement over sheathing joints with one of the following methods: Barritape, AB-151 Scrim + Barriseal-R, 4" DCH Reinforcing Fabric + Barriseal-R, CCW-201 struck flush OR approved sealant by others struck flush. Inside/outside corners shall be covered with minimum 9" width CCW-705 AVB Strips or with minimum 12" width DCH Reinforcing Fabric encapsulated in Barriseal-R.

Procedure for Installation of CCW-201 or Approved Sealants by Others: Apply according to instructions on product data sheet. Allow the sealant to cure fully before covering with Barriseal-S/R, CCW-705 AVB Strips or Barritape.

Procedure for Installation of DCH Reinforcing Fabric + Barriseal-R: Apply approximately 30 wet mils of Barriseal-R to the substrate with a brush or roller. Immediately set DCH Reinforcing Fabric into Barriseal-R, 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 Barriseal-R into laps. Immediately cover the fabric with a 2nd coat of Barriseal-R, encapsulating it. When the substrate temperature is 32°F or lower, or the ambient temperature is below 50°F, spray the top coat of Barriseal-R with Barricure solution, dispensed either from the co-spray gun with Barricoat-S turned off, or from a garden sprayer. Allow the detail to dry firm before spraying over with Barriseal-S.

Procedure for Installation of AB-151 Scrim + Barriseal-R: AB-151 Scrim is stiff, and therefore can only be used on flush joints, like sheathing joints. Press AB-151 Scrim in place, centered over the joint. Apply Barriseal-R with a brush, taking care to completely fill the joint and cover the scrim. Allow the detail to dry firm before spraying over with Barriseal-S.

Procedure for Installation of CCW-705 AVB Strips and Barritape Self Adhering Flashings: When the ambient or substrate temperature is below 40°F, use CCW-705 LT AVB Strips and follow the cold weather installation procedure indicated on the product data sheet. Prepare the surfaces with CCW-702 WB, CCW-702/702 LV or CAV-GRIP, following the instructions on the product data sheet. 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 a sharp knife, making square, clean cuts. Lap neighboring pieces 2" 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. If self-adhering flashing details will be left exposed for several days, it is a good practice to seal terminating edges with Barriseal-R or LM 800 XL to prevent de-lamination due to weather.

Procedure for Detailing Pipe/Duct Penetrations: Fill the rough gap around the penetration with non-shrink grout, polyurethane foam shaved flush or CCW-201. Wrap the pipe or conduit with CCW-705 AVB Strips, or DCH Reinforcing Fabric encapsulated in Barriseal-R. Reinforcement shall bear 3" minimum onto the wall and 3" minimum onto the pipe or conduit.

Procedure for Detailing Expansion Joints, Control Joints and Transitions: Cover the joint or transition with CCW-705 AVB Strips, bearing 3" minimum onto each side. Consult CCW shop drawings for more detail.

Procedure for Detailing Shelf Angle, Transition of Wall to Fenestration, Wall to Roof and Wall to Foundation: Details vary according to type of construction. Consult CCW shop drawings for more information.

Procedure for Spraying Barriseal-S: 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 the 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. Load Barriseal-S and Barricure into the spray system and start it up according to the instructions given in the CCW Spray Equipment Brochure. In cold weather, keep drums of Barriseal-S and the spray equipment in an area maintained at or above 50°F and keep the hose and gun reeled in except during spray. Spray the 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. Apply a maximum of 70 mils wet thickness per coat. Total membrane thickness after full cure shall measure a minimum of 40 mils. Note that coating thickness measured shortly after spray will only shrink about 10% by volume, since Barricure has already pulled much of the water from the Barriseal-S by the time thickness can be measured. Therefore, minimum thickness measured shortly after spray shall read a minimum of 45 mils with a comb type wet mil gauge, or 44 mils with a pin gauge. Spray full thickness over sheathing joint details and DCH Reinforcing Fabric details. Provide minimum 2" overspray onto CCW-705 AVB Strip details. 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 inspection for air/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.

Procedure for Repairing Damage to Installed Membrane: Remove damaged and loosely-adhered material. Clean weathered or dirty surfaces with a clean rag wet with xylene or toluene. Allow any solvent to dry and cover the damaged area with two, 30-wet-mil coats of Barriseal-R or a minimum 45 mil wet coat of Barriseal-S.

Procedure for Installation of Foam Plastic Board Insulation over Barriseal-R: Allow the Barriseal-S 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 Barriseal-S, and press insulation in place. Secure insulation with mechanical fasteners or brick ties.

WARNINGS AND HAZARDS

Avoid inhaling Barriseal-S and Barricure spray mists. Use only in areas with adequate ventilation. CCW-702, CAV-GRIP and LM 800 XL contain flammable and combustible solvents. Refer to MSDS for Barriseal-S and the accessory products for important warnings and information.

STORAGE

Store the product and accessories in an 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 drums and totes of Barriseal-S in an area maintained between 50°F and 90°F.

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.

900 Hensley Lane • Wylie TX 75098
800-527-7092 • www.carlisle-ccw.com

