



CCW-500

Hot-Applied Waterproofing Membrane

DESCRIPTION

CCW-500 Hot-Applied Waterproofing Membrane is a single-component, rubberized asphalt compound that forms a tough, flexible, thick waterproofing membrane. CCW-500 adheres tenaciously to virtually any sound surface, vertical or horizontal, to ensure water will not migrate beneath the membrane in the event of physical damage. The fast setup time speeds the completion of the waterproofing. CCW-500 Hot-Applied Liquid Membrane is applied in a thick, monolithic coating utilizing CCW Reinforcing Fabric, which allows for a wide variety of substrate conditions.

TYPICAL USES

CCW-500 is used for waterproofing split-slab construction projects and is especially suited as the waterproofing membrane on roof decks using the inverted roof membrane assemblies and green roof systems.

LIMITATIONS

- Do not use on exposed or wearing surfaces.
- Not recommended over lightweight insulated concrete.
- If metal pan is used for concrete form, the vented metal pan is preferred.
- Consult with Carlisle's representative before using CCW-500 on any type lightweight concrete, concrete with curing compounds or additives or decks that have existing waterproofing materials
- Do not apply below 0°F or to damp, frosty or contaminated surfaces.

PACKAGING

CCW-500 is packaged in 45-lb blocks, one block per carton, 64 cartons per pallet. Each block is sealed in a polyethylene bag inside the carton. The block, including the bag, is placed in the kettle, leaving only disposal of the carton.

The CCW Reinforcing Fabric is packaged in a rolls of:
 59" X 610' (3000 ft²) weight approx. 30 lbs
 36" X 667' (2000 ft²) weight approx. 24 lbs

APPLICABLE STANDARDS

- U.S. Patent Pending
- Canadian Specification CGSB-37.50-M89
- UL 790 Class A
- Miami-Dade

COVERAGE

The following is a guide to estimate the amount of materials required for various membrane thicknesses. Approx: 11.39 lbs/gallon.

215 mils applied = 1.53 lbs/ft² = 7.46 ft²/gal
 125 mils applied = 0.89 lbs/ft² = 12.83 ft²/gal
 90 mils applied = 0.64 lbs/ft² = 17.83 ft²/gal

TECHNICAL DATA

PROPERTY	METHOD	TYPICAL VALUE
Solids Content	ASTM D1353	100%
Flow	ASTM D5329	@ 140°F, 0 mm
Penetration (1/10th mm)	ASTM D5329	@ 77°F=72 @ 122°F=135
Flash Point	ASTM D92	464°F (240°C)
Water Vapor Permeance	ASTM E96 (E)	0.012 perms
Elongation	ASTM D412	>1,000%
Toughness	CGSB-37.50-M89	11.7J
Ratio of toughness to peak load	CGSB-37.50-M89	0.056
Adhesion	CGSB-37.50-M89	Pass
Viscosity	CGSB-37.50-M89	10 seconds
Water Absorption	CGSB-37.50-M89 max. 0.35g [gain]	96 hrs=0.0g
Pinholing	CGSB-37.50-M89	No visible pinholes
Low temperature flexibility	CGSB-37.50-M89	Pass
Low temperature crack bridging	CGSB-37.50-M89	Pass
Heat stability in viscosity, penetration, flow or low temp flexibility after aging	CGSB-37.50-M89	Pass
Resiliency	ASTM D3405	>60%
Resistance to mild acids		No effect
Minimum ambient temperature for application	—	0°F
Acid Resistance	ASTM D896	50% Sulfuric Acid w/o blistering, deterioration, delamination and re-emulsification
Sodium Chloride Resistance	ASTM D896	Passed 20% Sodium Chloride w/o blistering, deterioration, delamination and re-emulsification
Fertilizer Resistance	ASTM D896	Passed 30/10/10 Fertilizer w/o blistering, deterioration, delamination and re-emulsification

WARNINGS AND HAZARDS

Use with adequate ventilation. Workers must use proper protection to prevent burns. Refer to the MSDS for important warnings and product information.

INSTALLATION

Surface Preparation: New concrete shall be water cured, with a light, hair broom finish, and in place for 14 days minimum, 21 days preferred. Surface shall be structurally sound, dry, and free of dust, dirt, frost, laitance, non-approved curing agent or other contamination that may affect adhesion of the membrane.

Remove splatters, fins, ridges or other projections to provide a level surface. Fill holes, honeycombs, rock pockets, spalls or other voids and indentations with approved concrete patching compound.

Grind or fill surface at cold joints where each pour is at a different plane to provide a smooth and level surface.

Detail Work: Mix CCW-201 Sealant and apply per Carlisle standard details. Allow the sealant to cure overnight.

Detail expansion joints and drains per manufacturer's recommendation.

Apply a thin, even coat of CCW-550 Primer, 6" wide, centered over all non-moving cracks less than 1/16" wide and cold joints. Apply primer at a rate of 500 ft² per gallon. Allow primer to dry. Apply a 125 mil thickness coat of CCW-500 Hot-Applied Liquid Membrane over the primed crack or cold joint.

Apply a thin, even coat of CCW-550 Primer, 16" wide, centered over all cracks greater than 1/16" wide, all moving cracks and all previously sealed expansion joints. Allow primer to dry. Apply 90 mils of CCW-500 membrane to cover primed areas. Install a 12"-wide strip of CCW-711W Sheet Membrane Flashing, centered over the cracks and control joints.

Application: Blocks of CCW-500 shall be melted in a twin wall kettle with continuous agitation. Caution: Do not exceed maximum safe operating temperature of 375°F (for best results, use at 350°F.)

Apply a thin, even coat of CCW-550 Primer to the entire surface to receive waterproofing. At the juncture of all vertical sections with the deck surface, such as parapet walls, columns and all projections through the deck, apply a thin, even coat of CCW-550 Primer to the vertical section to the height indicated on the drawings (8" minimum recommended). Apply primer at a rate of 500 ft²/gallon. Allow the primer to dry. Note: Membrane will not properly adhere to wet primer.

Penetrations and Flashing details per manufacturer's published drawings.

Apply CCW-500 Hot-Applied Membrane to the primed vertical and horizontal surfaces, including all previously detailed areas. For vertical wall applications of 180 mils, install two coats of CCW-500 with each coat being applied to achieve 90 mils per coat. While the first coat is still warm and tacky, install CCW-500 Reinforcing Fabric and then apply second coat of CCW-500. For horizontal applications of 215 mils, install two coats of CCW-500 with the first coating being applied to achieve 90 mils and the second coat being applied to achieve 125 mils. While the first coat is still warm and tacky, install CCW-500 Reinforcing Fabric and then apply second coat of CCW-500.

INTEGRITY TESTING: Test is required for all expanded warranties beyond the standard material warranty of horizontal applications. The test can be done with Electronic Field Vector Mapping or flood testing. Flood testing requires 2" minimum head of water for a period of 24 hours.

Protection Course: The membrane must be protected from damage. Install CCW-Protection Board H or HS. Integrity testing can be performed with the protection board installed. Install CCW-MiraDRAIN and CCW-Root Barrier relative to the requirements of the designed overburden.

REPAIRS

In the event the CCW-500 Hot-Applied Liquid Membrane is damaged, clean the area with a cloth wet with mineral spirits and apply CCW-500 Hot-Applied Liquid Membrane to the damaged area.

All fluid applied product application rates are based on theoretical coverage relative to the percentage of solids in the material. These are minimum application rates to achieve the required dry film thickness for the system and do not account for substrate condition or porosity. A thicker application of the product may be necessary to achieve the required dry film thickness for system relative to the substrate.

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.