

SCIENCE. SERVICE. SOLUTIONS.



WATERPROOFING

CCW-525 Liquid Applied Waterproofing Membrane



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Carlisle Coatings & Waterproofing, Incorporated (CCW) provides a broad range of solutions to meet specific waterproofing needs. CCW offers technical services, research & development and manufacturing capabilities from its headquarters in Wylie, Texas and two additional manufacturing facilities in Terrell, TX and Carlisle, PA. The CCW network is further supported by over 50 manufacturer's sales representatives directed by regional sales offices throughout the country. CCW offers a complete line of waterproofing and moisture protection products for the architectural, general construction, industrial and maintenance industries. Carlisle Coatings & Waterproofing, Inc. is part of the Carlisle Construction Materials division of Carlisle Companies, Inc., which is a publicly traded company on the NYSE.

CCW-525 is the simple solution for waterproofing difficult below-grade areas with penetrations or various angle changes. This one-part, cold-applied liquid material cures to form a monolithic membrane providing lasting waterproofing protection. CCW-525 compliments other

Carlisle waterproofing systems by detailing critical areas such as transitions and angle changes, while its single-person, one-step application allows for improved jobsite efficiency.

CCW-525's moisture-cured, modified-polyurethane properties cure to form a strong, flexible membrane for various below-grade applications. With an available reinforced system for heavy-duty applications, CCW-525 may be layered for greater strength and protection. It provides tenacious adhesion to concrete substrates preventing lateral water migration for both vertical and horizontal surfaces. CCW-525's performance is enhanced when combined with the appropriate CCW MiraDRAIN® drainage system. CCW MiraDRAIN protects the waterproofing membrane, provides a channel for proper water migration and eliminates hydrostatic pressure. The inherent toughness and resilience of the CCW-525 membrane enables it to bridge structural or shrinkage cracks, which may develop in the substrate, providing lasting waterproofing protection.

Typical Use

Drainage plays a critical role in the design and construction of below-grade applications. Without proper drainage, groundwater seepage may cause hydrostatic pressure, and leakage, resulting in structural damage.

Effective drainage is essential. Yet, the costly and time-consuming installation of a conventional aggregate drainage system often compels builders and designers to compromise on drainage. This compromise can result in maintenance costs that far outweigh those associated with installing an effective drainage system.

Standard, Tests, Certificates

ASTM Specification: ASTM C 836-95



Packaging, Types & Accessories

- 5-gallon pails
- CCW-525-H – Horizontal Grade (self leveling)
- CCW-525-V – Vertical Grade (roller applied)
- Carlisle DCH Polyester Reinforcing Fabric – 40" x 324'
- CCW-201 Mastic – 1.5-Gallon Kit
- Carlisle LiquiFiber Reinforcement - 6" x 300' and 12" x 300'

Installation

Surface Preparation

New concrete shall be water cured, followed by a light hair broom, trowel finish and in place for 14 days minimum, 28 days preferred. If curing compounds are required, use the self dissipating type or as approved by CCW. CCW-525 adheres to surfaces that are structurally sound, dry, and free of oil, grease, dirt, laitance, curing or release agents and other contaminants that can harmfully affect the adhesion of the membrane. Block wall mortar joints must be struck flush.

Remove splatters, fins, ridges or other projections to provide a smooth, level surface. Fill tie rod holes, honeycombs, rock pockets, spalls or other voids and indentations with non-shrink grout.

Saw-cut moving cracks greater than $\frac{1}{16}$ " width to $\frac{1}{4}$ " wide by $\frac{1}{4}$ " deep. Provide a smooth and level surface by grinding or filling (as required) the surface at cold joints where each pour is at a different plane. Clean metal to expose a bright finish.

For detail work, clean joints and saw-cut cracks per the dimensions provided above. All moving cracks over $\frac{1}{16}$ " wide and all expansion joints less than 1" wide shall be cleaned, primed, fitted with a backing rod and caulked with Carlisle Polyurethane Sealant as recommended by the data sheet. For larger joints, contact a CCW representative.

Apply a 1", 45° angle sealant cant of CCW-201 at the juncture of all vertical and horizontal surfaces including around pipes, vents and other projections. Apply bondbreaker tape (or wax) over the sealant installed in expansion joints and saw-cut cracks. When using bondbreaker tape, apply three times the width of the joint.

Apply a 4"–6" wide stripe coat of CCW-525-V over all sealed cracks, joints and over all hairline cracks and cold joints. Apply a stripe coat of CCW-525-V over sealant cants and up the vertical wall to the height referred to on the applicable detail drawing, (minimum 8" recommended) and onto the horizontal deck 4"–6". Apply stripe coat at 45 ± 5 mils and allow to cure overnight.

Priming

For adhesion to dry, nonporous concrete, primer is not necessary. However, if pinhole and blister problems occur as a result of air and/or moisture vapors emitted from the concrete and environmental conditions, it is recommended that the surface be primed. Contact CCW Technical Services for primer compatibility.

Application

Prior to detail work, wipe all previously applied 525" areas with a clean cloth containing xylene solvent and allow the prepared area to dry.

Features & Benefits

- Liquid-applied membrane
- Single component
- Moisture cured
- Coal-tar free
- Cures to an elastomeric, monolithic membrane
- Vertical or horizontal application
- Provides tenacious adhesion
- Perfect for planters
- Can be used on smaller areas and detail work

Horizontal: Apply CCW-525-H over the cleaned, primed flange of drains, taking care not to fill weep holes. Using a notched squeegee, apply CCW-525-H at 22 square feet per gallon or as required to obtain a 60-mil thickness, to the entire area, including over all detail coats.

Vertical: Using a medium nap roller, apply CCW-525-V in two coats at a rate of 44 square feet per gallon or as required to obtain 30 mils per coat for a total thickness of 60 mils.

Reinforced System: Apply CCW-525-H at 22 square feet per gallon or as required to obtain a 60-mil thickness to the entire area, including over all detail coats.

Use a $\frac{1}{4}$ " notched squeegee or flat squeegee with guide pins to achieve a uniform thickness. Immediately install Carlisle DCH white polyester reinforcing fabric. Install carefully to avoid wrinkles. In the event of wrinkles or fishmouths, cut the fabric and overlap the excess to avoid trapped air. Extend the second layer of CCW-525 past the edge of the fabric to completely encapsulate the first layer. The completed system will have a total thickness of 120 mils.

Protection: The membrane must be protected from damage by future operations and other trades. CCW Protection Board is recommended for both vertical or horizontal surfaces. Install a protection course on vertical walls immediately after membrane has cured (36 hrs at 75°F). Install the protection course on horizontal application immediately following successful flood testing. If flood test is delayed, install a temporary covering to protect the membrane from other trades.

Flood Test: After membrane has cured 36 to 72 hours, plug drains and provide necessary barriers to contain flood water. Flood deck with a 1" head of water and allow to stand for 24 hours. Check for leaks and immediately make repairs if required. Retest after any repairs have been made.

Clean Up: Before material cures, clean adjacent areas to remove stains or spills and clean tools with toluene or xylene. **Do not clean or wash skin with solvents.**



Technical Data

Property	Application Type	Test Method	Results
Composition	Horizontal, Vertical & Roller	—	Modified Polyurethane
Color	Horizontal, Vertical & Roller	—	Black
Tack Free Time	Horizontal, Vertical & Roller	@ 75°F (24°C), 50% RH.	16 hrs
Cure Time	Horizontal, Vertical & Roller	@ 75°F (24°C), 50% RH.	36 hrs
Solids Content	Horizontal, Vertical & Roller	ASTM D 2369	82% (+/- 2)
Hardness	Horizontal, Vertical & Roller	ASTM D 2240	30 Shore A (min.)
Elongation	Horizontal, Vertical & Roller	ASTM D 412 ASTM D 412	575% 600%
Tensile	Horizontal, Vertical & Roller	ASTM D 412 ASTM D 412	250 psi 400 psi
Permeability ³	Horizontal, Vertical & Roller	ASTM E 96 ASTM E 96	0.07384 perms 0.07176 perms
Adhesion to Primed Concrete	Horizontal, Vertical & Roller	ASTM D 903 ASTM D 903	14.9 lbs/in (12.9 kg/cm) 19.0 lbs/in (16.4 kg/cm)

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.

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