



ChemCo Systems

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CCS™ UTILITY COATING LV

Flexible Epoxy Coating For Economical Surfacing

CCS Utility Coating LV is an economical, two - component, flexible, low viscosity epoxy coating with resistance to water, aqueous salt solutions and a wide range of commonly used aircraft and automotive chemicals including jet fuel, gasoline, selected hydraulic fluids, anti-freeze and battery acid. When seeded or blended with aggregate, it can be used on properly prepared asphalt and concrete pavements and on steel decks to provide a pedestrian or vehicular traffic surface with excellent slip/skid resistance and wear characteristics. Additional uses include bonding of precast concrete curbing to concrete and asphalt pavements. Available in two colors, concrete gray (blue/gray) and black.

Features

- Convenient 1:1, by vol. mix ratio
- Fast cure for short downtime
- Low Viscosity designed for multiple coat application
- Does not embrittle when exposed to direct sunlight
- Resists road, auto and aircraft chemicals
- Environmentally safe - No VOC solvents

Limitations: Substrates must be dry. The recommended minimum temperature during installation and cure is 50 deg. F. Apply after the daily substrate temperature has peaked. Concrete substrates on or below grade must have a functioning vapor barrier to minimize the potential for blistering or delaminating of the applied coating. Before applying on asphalt substrates, make sure the pavement is not subject to hydrostatic pressure that can cause blistering or delaminating of the coating. The cured material has limited crack-bridging capabilities. Do not add solvents or otherwise thin this material.

Packaging & Colors: Standard package sizes of Part A & Part B are 2, 10 and 100 gallons. Standard color is Concrete gray (blue-gray) and black; custom colors available.

Shelf Life: Three years minimum in unopened, original containers when stored between 60 and 90 deg. F in a dry place away from sunlight. Remixing of components may be required upon long-term storage.

Chemical Resistance: CCS Utility Coating LV is resistant to a wide range of commonly used aircraft and automotive chemicals including jet fuels, gasoline, hydraulic fluids, anti-freeze and battery acid. Ongoing exposure to gasohol and heavy-duty brake fluid (polyether glycol based lubricants) is not recommended. Performance is a function of the specific chemical and concentration, ambient and solution temperatures, exposure times and housekeeping procedures. For information on specific chemicals and exposure conditions, contact a ChemCo Systems, Inc., technical representative.

Surface Preparation: Concrete surfaces must be dry, sound and free of all bond-inhibiting substances. Prepare surfaces in accordance with *ASTM D 4259 "Standard Practice for Abrading Concrete,"* or *ACI 503R "Preparing Surfaces for Epoxy Compound Application,"* and ChemCo Systems' specific recommendations. Cleaned concrete surfaces should have a minimum strength of 250 psi in direct tension. Steel surfaces should be cleaned to "white metal" according to SSPC SP 5.

Mixing: CCS Utility Coating LV is a two-component system. The resin to hardener (Part A: Part B) mix ratio is 1:1, by volume. Read all material safety data (MSDS) information before handling the product. Wear safety glasses and clean neoprene rubber gloves when handling the materials. Premix the individual components before drawing from bulk packaging. Transfer appropriate quantities of Part A and Part B into a mixing container. Use quantities that can be applied before the pot life of the mixed material expires. Blend thoroughly using a Jiffy mixer blade attached to a low speed (350 - 750 rpm) electric or pneumatic drill. Proper mixing will take 2 - 3 minutes.

Installing: Pour mixed material onto the substrate and spread to a coverage of 105 sq ft/gal (15 mils) with a 3/8" nap paint roller or squeegee. Allow the coating to become tacky to tack-free (3 - 6 hr @ 70 deg. F) before applying the second coat. Apply the second coat and spread to a coverage of 64 sq ft/gal (2.5 mils) with a V-notch trowel or squeegee. Allow the material to level and back-roll with a 3/8" nap paint roller. Avoid excessive cure times between coats. Aggregate, if used, must be broadcast onto the coating within 15 minutes of application. The recommended aggregate size is #6 x 12 or #8 x 16 mesh. Typical aggregate broadcast rates are 1.25 -1.75 lb/sq ft.

Approximate Yield

Coating Thickness.(mil)	Square feet/gallon
15	105
20	80
25	64
30	53
40	40

TYPICAL PROPERTIES ⁽¹⁾

Property ⁽²⁾	Test Method	Value
Mix Ratio, A:B,	by vol	1:1
	by wt	100:79
Color:	Part A	Concrete blue-gray or Black
	Part B	Clear amber
	Mixed	Concrete blue-gray or Black
Weight per Gallon, lb:	Part A	9.8
	Part B	7.8
	Mixed	8.8
Viscosity, cp:	Part A	900
	Part B	1400
	Mixed	1150
Gel Time, 200 g, minutes	ASTM D 2471	39
Tensile Strength, psi	ASTM D 638	1600 (3)
Elongation at Break, %	ASTM D 638	70 (3)
Thin Film Tack free time, hrs	ASTM D 1640	8
Taber Abraser, mg loss	ASTM D 4060	80 (4)

- (1) The properties listed are typical and descriptive of the product and should not be used for specification purposes. For specification preparation, reference the ChemCo Systems, Inc., product guideline specification.
- (2) Cure schedule, 7 days at 73° ± 4 F and test temperature, 73° ± 4 F
- (3) Tested at crosshead speed of 2.0 inches/minute.
- (4) CS-17 wheels, 1000 g load, 1000 cycles.

Handling and Toxicity: This bulletin does not accompany the product when sold. For hazard warnings, safe handling and first aid instructions, READ CAREFULLY THE MATERIAL SAFETY DATA SHEETS AND CONTAINER WARNING LABELS.

Part A: Liquid epoxy resin, HMIS Health Hazard Rating - 2 (Moderate Hazard). Warning! Causes eye and skin irritation. May cause allergic skin reaction. Harmful if swallowed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid prolonged or repeated contact with skin.

Part B: Liquid epoxy hardener, HMIS Health Hazard Rating - 2 (Moderate Hazard). Contains alkaline amines. Warning! Causes eye and skin irritation. May cause allergic skin and respiratory reaction. Combustible, corrosive. Do not get in eyes or skin or on clothing. Avoid breathing vapor. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat and open flame.

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