

MasterProtect[®] EL 850

Silicone-modified, elastomeric,
anti-carbonation and waterproof coating

FORMERLY SILFLEX[®]

PACKAGING

5 gallon (18.93 L) pails

YIELD

See chart on page 2

STORAGE

Store in unopened containers in a clean, dry area. Keep from freezing.

SHELF LIFE

18 months when properly stored

VOC CONTENT

84 g/L less water and exempt solvents

DESCRIPTION

MasterProtect EL 850 is a water-based, silicone-modified elastomeric coating for waterproofing exterior surfaces. It has superior crack-bridging ability with a total elongation of 700%. It retards carbonation of concrete. It complies with Federal Specification TT-C-555B, Type II.

PRODUCT HIGHLIGHTS

- Silicone-modified acrylic formula is recoatable
- Available in a broad range of colors
- Resists wind-driven rain, helps prevent water penetration into the substrate
- Breathable to allow water vapor to escape
- High elongation and recovery for durable performance over dynamic cracks.
- Excellent adhesion, bonds securely to substrate for long-term durability
- UV resistance provides excellent color retention for a long lasting attractive finish
- Excellent hiding power
- Effective carbon dioxide diffusion barrier, protects embedded steel from corrosion
- Low VOC content for broad compliance across all regions
- Flexibility at very low temperatures makes it suitable for all climates
- Resistant to dirt pickup

APPLICATIONS

- Exterior
- Vertical surfaces
- Above grade

SUBSTRATES

- Stucco
- Brick
- Concrete
- CMU
- EIFS
- Over Existing Coatings

HOW TO APPLY

SURFACE PREPARATION

1. Surfaces should be clean and sound and free of all bond-inhibiting contaminants.
2. Concrete substrates should be fully cured.
3. Repair any holes, spalled and damaged concrete with appropriate Master Builders Solutions repair materials. Allow appropriate cure time prior to coating.
4. Remove any protruding concrete accessories and smooth out any surface irregularities.
5. High-pressure power wash surface (or abrasive blast on hard, dense surfaces) to create a profile of SP 3, per ICRI Guide 310.2.
6. Some stains may require chemical removal. Neutralize any cleaning compounds used and rinse with clean water.
7. Check adhesion of old coatings according to ASTM D 3359, Measuring Adhesion by Tape Test Method A.

Technical Data

Composition

MasterProtect EL 850 is a silicone-modified 100% acrylic emulsion coating.

Typical Properties

PROPERTY	VALUE
Weight, lbs/gal (kg/L), (pastel base)	10.6 (88.3)
Solids by weight, %	55.1
Solids by volume, %	45.7
Viscosity, KU	131

Test Data

PROPERTY	RESULTS	TEST METHOD
Elongation at break, %	784.5	ASTM D 2370
Tensile strength, psi (MPa)	40 (0.28)	ASTM D 2370
Wind-driven rain, (98 mph)	Passes	TT-C-555B
Artificial weathering, Xenon Arc, 4,000 hrs	No chalking, checking, cracking, or adhesion loss Color change: ΔE < 2.6	ASTM G 155
CO2 diffusion resistance, at 10 dry mils	323,000 8" (203 mm) equivalent concrete layer	Engelfried
Water-vapor transmission, perms		ASTM D 1653 / ASTM E 96
Wet	13	
Dry	1.62	
Dirt pick-up, at 2 months	93%	ASTM D 3719
Hiding at 6 wet mils (0.15 mm), % opacity	99.8	ASTM D 2805
Low-temp flexibility, 1/8" (3.2 mm) mandrel at -30° F (-34° C)	Passes	ASTM D 522

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Yield

APPROXIMATE COVERAGE RATES

SUBSTRATE	FT ² /GAL (M ² /L) PER COAT
Troweled stucco	60–80 (1.5–2.0)
Blown on stucco	50–70 (1.2–1.7)
Block	50–70 (1.2–1.7)
Brick	60–80 (1.5–2.0)
Concrete	80–100 (2.0–2.5)

Wet and Dry Film Thickness

FT ² /GAL (M ² /L) PER COAT	AVERAGE DRY FILM MILS (MM)	AVERAGE WET FILM MILS (MM)
50 (1.23)	14–15 (0.35–0.38)	32–33 (0.81–0.83)
60 (1.47)	12–13 (0.30–0.33)	26–27 (0.66–0.68)
80 (1.96)	9–10 (0.23–0.25)	20–21 (0.51–0.53)
100 (2.45)	7–8 (0.18–0.20)	16–17 (0.41–0.43)

Coverage rates are theoretical on smooth-surfaced, properly primed substrates. Important: Warranty applications require a minimum 12 dry mils (0.30 mm) film thickness.

8. Remove any blisters or delaminated areas and sand edges to smooth rough areas and provide transition to old paint areas.
9. Treat cracks greater than $\frac{1}{32}$ " with MasterProtect FL 746 or MasterProtect FL 748. Treat cracks larger than $\frac{1}{4}$ " as expansion joints and fill with appropriate Master Builders Solutions sealant.
10. New CMU must have a base coat of MasterProtect FL 749.

MIXING

1. Prior to use, mix MasterProtect EL 850 at slow speed with drill and mixing paddle to ensure uniform color disbursement and to minimize air entrapment.
2. In multi-pail applications, mix the contents of each new pail into the partially used previous pail to ensure color consistency and smooth transitions from pail to pail.

APPLICATION

1. Apply MasterProtect EL 850 by brush, spray, roller, or spray-and-backroll
2. Maintain proper uniform wet-film thickness (WFT) during application to ensure the performance characteristics desired (see yield rates section).
3. Always work to a natural break and maintain a wet edge during application.
4. For uniformity of color, application techniques must be consistent throughout the project.

ROLLER

1. Use a quality $\frac{3}{4}$ – $1\frac{1}{4}$ " nap roller cover.
2. Completely saturate the roller and keep it loaded with the coating to build the required mils. Never dry roll.
3. Cross roll, maintaining a wet edge, to achieve uniform thickness. Backroll in one direction for consistent appearance.

SPRAY

1. Equipment is available for spraying MasterProtect EL 850. Contact equipment manufacturer for further recommendations.
2. Backrolling in one direction after spray application is recommended to achieve uniform film thickness.

BRUSH

1. Application by brush is recommended only for small inaccessible areas, e.g., on touch-ups.
2. Use only a nylon brush.

DRYING TIME

Times assume 70° F (21° C) and 50% relative humidity.
To recoat: minimum of 12 hours.

CLEAN UP

Clean all tools and equipment immediately with water. Cured material may be removed by mechanical means.

FOR BEST PERFORMANCE

- Do not apply when substrate or ambient temperature is 40° F (4° C) or below or is expected to fall below 40° F (4° C) within 24 hours after application.
- Do not apply if rain is expected within 24 hours of application.
- Do not use on interior applications, undersides of balconies, soffits, below-grade applications or for immersion service.
- Do not use where there may be hydrostatic water transfer from the backside of the substrate.
- Do not apply to improperly sealed substrates that are subject to rising dampness or migrating moisture.
- Not intended for use as a horizontal traffic-bearing coating.
- Application of nonelastomeric topcoats could reduce the performance properties of MasterProtect EL 850.
- Apply a 4 by 4 ft (1.2 by 1.2 m) test area to verify acceptable color and adhesion before proceeding with any project. The test method for measuring adhesion is ASTM D 3359, Measuring Adhesion by Tape Method A. On the 0–5 scale, a minimum adhesion rating of 4A is required.
- Color formulas containing organic colorants are susceptible to fading in exterior applications. Refer to Technical Support for guidance.
- Do not thin the material.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of product data sheet and SDS are being used; visit www.master-builders-solutions.com/en-us. Master Builders Solutions.us to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.com/en-us, e-mailing your request to mbsbcst@mbcc-group.com or calling 1(800)433-9517. Use only as directed.

IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.

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