



westcoat[®]
SPECIALTY COATING SYSTEMS

PRODUCT SPECIFICATION

EC

EPOXY COAT
DURABLE RESINS & HARDENERS

EC-40 Antimicrobial Epoxy

Description

EC-40 Antimicrobial Epoxy is a two-component, 100% solids, medium viscosity, low odor, high-build epoxy that inhibits the growth of fungi, bacteria and algae.

Uses

EC-40 epoxy is used to provide an epoxy floor coating that controls algal, bacterial and fungal organisms that cause odor and degrade coatings. Its application would be recommended in restaurants, hospitals, pharmaceutical manufacturing, commercial kitchens, laboratories, animal care facilities and any areas that require an anti-fungal coating. EC-40 can be used in Westcoat's Epoxy Slurry, Thin Film and Dubro Systems.

Advantages

Antimicrobial • USDA/FDA Compliant • 100% Solids • Chemical Resistant • Convenient 2:1 Mix • High Build • Low Odor • Superior Adhesion • Pigmented • High Strength

Product Data			
Packaging	1.5 gal & 15 gal kits available	Color	Black, Cape Cod Gray, Clear, Concrete Gray, Deep Tan, Pewter Gray, Stone Gray Travatan, Tile Red, White
Coverages	~100-300 ft ² / US gal. (As a Coating) ~50-100 ft ² / US gal. (As a Slurry)	Mix Ratio	2:1 (By Volume)
VOC Content	0 gm/l	Shelf Life	2 years in unopened packaging

Inspection

The surface must be structurally sound, clean, dry and free of grease, paint, oil, dust, curing agents, laitance or any foreign material that will prevent proper adhesion. The concrete should be at least 2,500 PSI and porous or rough enough to allow the product to soak in. A minimum of 28 days curing time is required on all concrete. Prior to starting work, test existing concrete slab for efflorescence, moisture and hydrostatic pressure.

Preparation

Pre-cut and clean all cracks and joints with a concrete diamond blade to at least ¼ x ¼ inch. Prepare concrete to a profile equal to CSP 3-4 as specified by ICRI. Methods may vary according to the condition and hardness of the concrete. Other factors include the forecasted use of the surface and the environment in which it is to be installed. When preparing the surface use caution when shot blasting, scarifying too aggressively, leaving grind marks or grinding too smooth. Please refer to the desired System Specification Sheet for more information on preparation. For best results, EC-12 Epoxy Primer or EC-15 Moisture Vapor Barrier are recommended as a primer. Please refer to these Product Specification Sheets for more information.

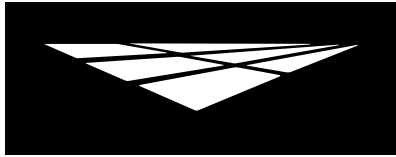
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1 of 4
EC-40 1/23



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Moisture

All concrete should be tested for moisture before applying a seamless coating. If moisture emissions exceed 5 lbs/1000 square feet/24 hours (ASTM F1869) or if the relative humidity (RH) exceeds 75% (ASTM F2170), contact the manufacturer before application.

Mixing

Premix each component separately. For color consistency, box all part A's. In a clean bucket, mix 2 parts A with 1 part B (by volume) of EC-40. Mix thoroughly with a low speed (400-600 rpm) drill motor for 4-5 minutes. Make sure to scrape the sides and bottom of the container during mixing. After mixing is completed, remove material from container within 5 minutes, as epoxy will begin to generate heat. Spread immediately onto the floor. As product is spread out, you will have longer working time (10-15 minutes at 70F degrees).

Thinning

Thinning is not recommended.

Coverage

Coverage will vary depending on condition of surface and desired thickness. As a primer: 300-500 square feet per gallon. As a coating: 100-300 square feet per gallon. As a slurry: 50-100 square feet per gallon.

Applying Product

As a coating, apply EC-40 within 24 hours (at 72F degrees) after the primer coat. Immediately after mixing, spread a strip of material onto the surface along the edges where it will be "cut in" using a brush. Pour the remaining material near the "cut in" area and spread evenly using a trowel or squeegee and back roll using a ¼ to ⅜ inch nap, non-shedding roller designed for use with epoxies. For thicker applications, a notched trowel or squeegee will help regulate the thickness and a porcupine roller will help to release trapped air and minimize bubbles. Depending on the look, thickness, chemical and abrasion resistance desired, 1 to 2 coats may be applied. Please refer to desired System Specification Sheet for more information on applying the product.

Dry Time

You may re-coat as soon as the surface is dry to touch or in about 8-10 hours. Light foot traffic may be permitted in 12 hours, normal traffic in 24 hours and vehicle traffic in 3 days. All times are based on average temperature of 70F degrees and 50% humidity. Cooler temperatures will increase drying time.

Clean Up

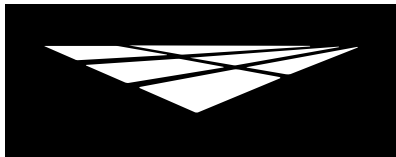
Uncured material should be removed with an environmentally-safe solvent. Cured material should be removed mechanically.

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2 of 4
EC-40 1/23



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Limitations

- This product is designed for professional use only.
- Be sure to measure and mix properly. Be aware of the pot life of mixed epoxy.
- Do not apply when temperatures are below 50°F or above 90°F. Hot or cold weather will affect dry times.
- Epoxy must be cured for a minimum of 24 hours before coming in contact with water.
- Skid resistant additives are available, such as CA-30 or CA-31.
- For interior use only unless protected by a UV resistant coating.
- Solvents may be required in cooler weather to lower viscosity and increase coverage of 100% solids.
- Please check with local laws governing the use of solvents.
- Do not allow Westcoat products to freeze.

Health Precautions

Inhalation of vapor or mist can cause headache, nausea irritation of nose, throat, and lungs. Avoid breathing vapors, it is strongly recommended that respirators are worn. Prolonged or repeated skin contact can cause slight skin irritation. All epoxies have the potential of causing skin irritations or allergic reactions. Be careful not to get on skin, clothes or in eyes. Gloves are strongly recommended. If splashed in the eye, flush with warm water and contact a physician if blurring persists.

Solvent based products are extremely flammable, extinguish all pilot lights and sources of ignition such as electrical motors. Be sure to have adequate cross ventilation prior to installing.

Slip Precaution

Westcoat Specialty Coatings Systems highly recommends the use of a slip-resistant additive to all coatings/systems that may be exposed to wet, oily, greasy or slippery conditions. It is the end user's responsibility to provide a flooring system that meets current safety standards. Westcoat and its distributors will not be responsible for injury incurred during a slip and fall incident. For the current coefficient of friction requirements, please consult your local building codes.

Minimum Inhibitory Concentration of Organisms

	Algae
Chlorella Vulgaris	16 ppm
Nostoc Muscorum	16 ppm
Oscillatoria Tenuis	16 ppm
Pleurococcus SP	16 ppm
Trentepohlia Aurea	16 ppm

	Bacteria
Alcaligenes Faecalis	31 ppm
Flavobacterium Capsulatum	16 ppm

	Streptomycetes
Streptovercillium Waksmanii	2 ppm

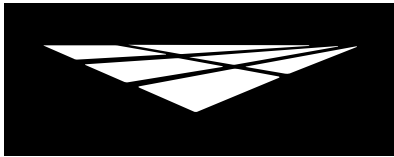
	Fungi
Alternaria Alternata	2 ppm
Aureobasidium Pullulans	4 ppm
Chaetomium Globosum	<0.5 ppm
Cladosporium Herbarum	2 ppm
Cladosporium Cladosporoides	>0.5 ppm
Gliocladium Virens	8 ppm
Paecilomyces Variotti	1 ppm
Penicillium Funiculosum	1 ppm
Scopulariopsis Brevicaulis	1 ppm

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3 of 4
EC-40 1/23



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Physical Properties

Chemical Composition	Bis A epoxy resin crosslinked with modified amines
Weight/gal (mix)	9.8
Gloss @60 Degree	101
Solids %/wt (mix)	100
Solids %/vol (mix)	100
Viscosity cPs (mix)	1074
Viscosity KU (mix)	88
VOC gm/l (mix)	0
Shelf Life	2 years
Color (gardner)	NA

Technical Data

Tack Free over concrete @72°F	4 hr.
Foot Traffic over concrete @72°F	7 hr.
Foot Traffic -sealed surface- @72°F	7 hr
Wheel Traffic	72 hr.
Pot Life (Gel Time) 150gm @72°F	35 min.
Heat Resistance (constant)	130°F
Heat Resistance (intermittent)	180°F
Adhesion on steel ASTM D3359	5
Adhesion on concrete ASTM D3359	5
Tensile Strength (ASTM D638)	3,500 psi
Tensile Elongation (ASTM D638)	7%
Compressive Strength (ASTM D695)	8,500 psi
Compressive Modulus (ASTM D695)	28,035 psi
Flexural Strength (ASTM D790)	9,150 psi
Flexural Modulus (ASTM D790)	232,500 psi
Impact Resistance in-lbs direct/reverse	Not Tested
Hardness Shore D (ASTM D2240)	79 (7 days) 84 (30 days)
Pencil Hardness	3H
Reducer/Clean Up	CA-23 or Acetone

Chemical Resistance

	Clear & Pigmented
Muriatic Acid (31.5% HCL)	5
Sulfuric Acid (50% H2SO4)	5
Sulfuric Acid (93% H2SO4)	3s
Nitric Acid (10% HNO3)	5
Sodium Hydroxide (50% NaOH)	5
Bleach (sodium hypochlorite)	5
Vinegar (3-5% acetic acid)	5
Transmission Fluid	5
Gasoline	5
Brake Fluid	5
409 Surface Cleaner	5
Pine Sol Solution	5
Blood & Body Fluids	5
Iodine Solution	5s
Mustard	5/5s
Ketchup	5/5
Red Wine	5/5
Acetone	5
Methyl Ethyl Ketone (MEK)	5
Xylene	5
Ethanol	5
Methanol	5

Key:

5 = Best (no effect), 4 = Softens (recovers)
3 = Softens (no recovery), 2 = Blistered (no recovery)
1 = Worst Destroyed, s = With Stain
* Contact time > 5hrs = 1

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4 of 4
EC-40 1/23