

westcoat[®]
SPECIALTY COATING SYSTEMS

**PRODUCT
SPECIFICATION**

EC

EPOXY COAT
DURABLE RESINS & HARDENERS

EC-15 Moisture Vapor Barrier

Description

Westcoat EC-15 Moisture Vapor Barrier is a uniquely formulated, two component, 100% solids, zero VOC epoxy that is moisture tolerant and diluent free.

Uses

EC-15 is designed to be applied directly over properly prepared concrete substrates and works to reduce the MVER (Moisture Vapor Emission Rate) of up to 15 lbs/24 hours * 1000 square feet. EC-15 can be used with most Westcoat Systems.

Advantages

Easy-to-apply • One Coat Application • Low VOC • Excellent Adhesion • Economical Solution • Compatible with Most Westcoat Flooring Systems • Resistant to High pH levels • Suitable for Slabs with MVER up to 15 Pounds and RH up to 95%

Product Data			
Packaging	1.65 gal kit & 4.125 gal kit available	Color	Clear
Coverages	~80-100 ft ² / US gal.	Mix Ratio	1.65 gal kit- 128 oz : 83 oz (By Volume) 4.125 gal kit- 320 oz : 208 oz (By Volume)
VOC Content	<0 gm/l	Shelf Life	2 years in unopened packaging
Certifications	VOC Emission Test Certificate: Berkeley Analytical - Certificate No: 190516-04		

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 3,000 PSI and porous or rough enough to allow the product to soak in. A minimum of 7-10 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. Diamond grinding should only be used for edge detailing and where shotblasting is inaccessible. For concrete patching repairs, please refer to the TC-23 Mortar Mix Product Specification.

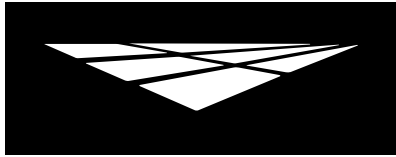
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Moisture

Westcoat recommends that all concrete should be tested for moisture before applying a seamless coating. Concrete should be tested in accordance with ASTM F1869 and ASTM F2170. If moisture levels exceed 15 lbs/1000 square feet/24 hours (ASTM F1869) or 95% RH (ASTM F2170), contact the manufacturer before application.

Dormant (Non-Moving) Crack and Joint Treatment

Cracks greater than $\frac{1}{32}$ inch should be routed out $\frac{1}{4}$ x $\frac{1}{4}$ inch. Pre-cut and clean all cracks with a concrete diamond blade to at least $\frac{1}{4}$ x $\frac{1}{4}$ inch. Non-moving cracks that are $\frac{1}{4}$ inch wide or less can be filled with EC-15. Non-moving cracks larger than $\frac{1}{4}$ inch wide can be filled with a mixture of EC-15 and CA-04 Epoxy Thickener.

Moving Crack and Joint Treatment

Cracks greater than $\frac{1}{32}$ inch should be routed out $\frac{1}{4}$ x $\frac{1}{4}$ inch. Pre-cut and clean all joints with a concrete diamond blade to at least $\frac{1}{4}$ x $\frac{1}{4}$ inch. Apply EC-15 to all crack and joint walls and allow to cure. Once cured, install backer rod and appropriate joint filler material.

Mixing

Do Not Break Kits. Premix each component separately. In a clean mixing vessel, mix EC-15 part A with EC-15 part B. Mix thoroughly with a low speed (300-400 rpm) drill motor for 3-4 minutes. Make sure to scrape the sides and bottom of the container during mixing. After mixing is completed, remove material from container promptly, as epoxy will begin to generate heat.

Thinning

Under normal conditions, a one coat application is sufficient. For one coat applications, EC-15 should be applied neat and thinning is not recommended. For more challenging substrates, a two coat application can be applied. For this scenario, it is recommended to apply the first coat of EC-15 thinned with two quarts of CA-23 and then the second coat must be applied neat.

Coverage

Coverage will vary depending on the condition of the concrete substrate, but a minimum Dry Film Thickness (DFT) of 16 mils is required. Coverage rates for a one coat application should be around 80-100 square feet per gallon. For a two coat application, apply the first coat of thinned EC-15 at a rate of 250-300 square feet per gallon and apply the second coat at 80-100 square feet per gallon.

Applying Product

Always apply late in the day, when concrete slab is descending in temperature. After properly mixing the EC-15, immediately spread the material onto the prepared surface using a notched squeegee, to ensure proper coverage rate and then back roll with a $\frac{3}{8}$ inch, high-quality roller cover, that is approved for use with epoxies.

Dry Time

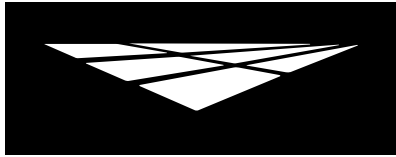
You may re-coat as soon as the surface is dry to touch or in about 5-8 hours (but not later than 24 hours). Light foot traffic may be permitted in 8-12 hours, light vehicle traffic in 48 hours, heavy traffic in 3 days. All times are based on average temperature of 70F degrees and 50% humidity. Cooler temperatures will increase drying time.

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Finished Flooring Systems and Applications - Cementitious Toppings

Cementitious Toppings, such as Westcoat Texture-Crete[®], MACoat[™] or similar systems, require a primer and sand broadcast to ensure proper adhesion. Westcoat's EC-12 Epoxy Primer and a sand broadcast can be applied directly over the EC-15 within 24 hours of application. If delay occurs beyond the 24 hour recoat window, the EC-15 must be sanded and wiped with denatured alcohol before applying the EC-12.

Finished Flooring Systems and Applications - Resinous Flooring

Resinous Flooring Systems, such as Westcoat Thin Film, Liquid Granite[™] or similar systems, can be applied directly over the EC-15 within 24 hours of application. If delay occurs beyond the 24 hour recoat window, the EC-15 must be sanded and wiped with denatured alcohol before applying the desired resinous flooring system.

Clean Up

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

Limitations

- This product is designed for professional use only.
- Do not modify mix ratios.
- When applying a coating over EC-15, it is recommended to confirm adhesion, prior to application.
- 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.
- Avoid application while ambient and substrate temperatures are climbing, as pinholes may appear.
- Do not apply EC-15 if the concrete substrate has ASR (Alkali Silica Reaction) or is susceptible to ASR.
- Movement or cracking in the concrete slab may cause a breach in the EC-15 MVB.
- 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.

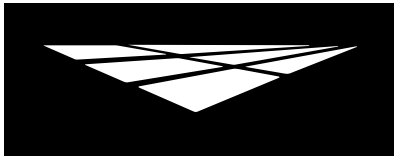
Solvent based products are extremely flammable, extinguish all pilot lights and sources of ignition such as electrical motors. Be sure to have adequate cross ventilation prior to installing.

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Technical Data

Physical Properties

Chemical Composition	Modified Bis F Modified Amidoamine
	Clear
Weight/gal (mix)	9.2
Gloss @60 Degree	110
Solids %/wt (mix)	100
Solids %/vol (mix)	100
Viscosity cPs (mix)	1130
Viscosity KU (mix)	90
VOC gm/l (mix)	0
Shelf Life	2 years
Color (gardner)	3

Chemical Resistance

	Clear
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

Technical Data

	Clear
Tack Free over concrete @72°F	5 hr.
Foot Traffic over concrete @72°F	8 hr.
Pot Life (Gel Time) 150gm @72°F	30 min.
Heat Resistance (constant)	130°F
Heat Resistance (intermittent)	180°F
Adhesion to Concrete (ASTM D4541) Method: 20mm Dowel	660 psi - 100% Concrete Failure
Adhesion on steel (ASTM D3359)	5
Adhesion on concrete (ASTM D3359)	5
Tensile Strength (ASTM D638)	7,100 psi
Tensile Elongation (ASTM D638)	4%
Compressive Strength (ASTM D695)	13,500 psi
Flexural Strength (ASTM D790)	11,100 psi
Impact Resistance in-lbs direct/reverse	15/2
Hardness Shore D (ASTM D2240)	80-85
Pencil Hardness	3H
Permeability (ASTM E96)	0.1 @ 18 mil
Reducer/Clean Up	Acetone or PCBTF

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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