



HIGH PERFORMANCE
TOPICAL SYSTEM

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PRODUCT DESCRIPTION

Barrier-1 High Performance Topical System is a unique three component, water-based, non-toxic, zero VOC liquid that is designed to provide a superior chemical and mechanical bond to the concrete substrate and stop moisture vapor emission. This unique three-component, water-reducible coating will add speed and provide additional / enhanced adhesion to the application of coatings, membranes and cementitious underlayments.

Barrier-1 Topical System is a unique three-component, Water-Reducible coating. It can be applied to concrete containing Barrier-1 High Performance Concrete Admixture or as the Barrier-1 Topical System. Barrier-1 Topical System is applied to new concrete within 12 hours of placement of structural roofs slabs, or as the Barrier-1 Topical System for existing concrete slabs.. Coatings, membranes and underlayments and can be applied six to twelve hours after application of Barrier-1 Topical System. This is accomplished by superior adhesion to the concrete slab.

APPLICATION DATA SUMMARY

See Application Instructions for complete information on surface preparation, equipment, environmental conditions, application procedures, and safety precautions. For conditions outside the specifications or limitations described, contact Barrier-1 Inc. for details.

SURFACE PREPARATION

Coating performance is directly related to the quality and degree of surface preparation. Prior to overcoating, all surfaces must be clean, and free of all contaminants. For more specific information, consult the surface preparation section contained in the Application instructions and from your Barrier-1 Representative.

SAFETY PRECAUTIONS

Read the Material Safety Data sheet carefully before use. Safety precautions in the MSDS should be carefully followed during storage, handling and use.

PHYSICAL DATA

Finish	Matte
Color	Clear
Components	Three
Curing Mechanism	Chemical reaction
Volume Solids	22.5% (Mixed Kit)
Dry Film Thickness	5 mils (minimum)
Total Coats	1 or more
Theoretical Coverage (Depends on Porosity)	500 sf per Gallon
VOC	0 (Zero)
Temperature limits	200°F (100°C)
Adhesion (on Concrete)	> 350 psi
Flashpoint (SETA)	N/A

APPLICATION DATA

Substrate: New Concrete (8-12 Hrs.) Containing Barrier-1 High Performance Concrete Admixture or To Existing Concrete as the Barrier-1 Topical System

Surface Preparation	
Steel	Not Recommended
Concrete (Old)	ICRI #3 Profile
Concrete (New)	Broom Finish, Clean

Application Method: Airless, Backpack Sprayer and Roller ; **Must be Backrolled with 1/4" to 3/8" Nap Roller During The Application.**

Gel Time >60 minutes (125g @77°F)
 Induction Period None
 Mix Ratios: 0.4 Parts "A" to 0.5 Parts "B" to
 2.0 Parts "C" (Water) by Volume

Environmental conditions

Temperature Range 50-120°F
 Max Relative Humidity NA
 Surface Temperature 50-120°F

Curing time (Depends on Temperature & Humidity)

	50°F	70°F	90°
Tack Free	NT	2 hr	NT
Overcoat (Old Concrete)	NT	6 hr	NT
Through	NT	12 hr	NT
Overcoat (Green Concrete)	NT	>17 hr*	NT

* Extra Preparation may be required for extended recoat times (>24 hours). Consult Barrier-1 for recommendations based on specific products.

Max Chemical resistance 4 – 7 days

Thinner Water

Equipment Cleaner: Water followed by MEK

MIXING:

The Barrier-1 High Performance Topical System is packaged in pre-measured containers consisting of Resin Part A and Hardener Part B which must be mixed together before use.

The mixing of this product is critical and should be carefully followed. Use a mechanical mixer (such as a drill) with a proper mixing attachment (jiffy mixer). Begin by mixing Part B (Larger Container) for 30 seconds. Add Part A (Small Container) to Part B under agitation (while you are mixing). Mix the combined parts for 3 minutes. This 3 minute mixing time is critical as the 2 components must react for 3 minutes prior to the addition of Part C (water). This mixture will turn a milky white with a slight green tint. After the 3-minute mixing cycle, add 25% (1/4) of Part C (water) while the mixer continues to mix, the water must be at least 50°F. After the first 25% addition of water, mix for 60 seconds with high agitation. Add the second 25% of water and mix for 45 seconds. Add the last 50% of water and mix an additional 30 seconds or until uniformly mixed.

SHIPPING DATA

Packaging (Kits) 3 Gallon Kits and 1.5 Gallon Kits

Shelf Life (indoors @ 40-100°F) 12 Months

WARRANTY

Barrier-1 Topical System is formulated to eliminate the route of moisture vapor emission through concrete and meets or exceeds all guidelines pertaining to moisture emission as established by the flooring industry. This topical system carries a standard manufacturer's construction warranty for ten (10) years against moisture related flooring failure, including all finish floor materials and labor. Contact manufacturer for more information on warranty condition, duration and remedy.

Barrier-1 Topical System 1503 cannot be used as a wear layer and is not suitable for operational use prior to a wear layer being applied.

