



# EnviroGrip™ 403

## Moisture Vapor Barrier Epoxy

### DESCRIPTION

EnviroGrip™ 403 is a clear 2-component, 100% solids, low odor, low viscosity epoxy that is specifically formulated as a moisture barrier coating to treat new and existing concrete floors with high moisture and high pH. EnviroGrip™ 403 can be used as a one-coat moisture vapor barrier coating suitable for various types of concrete. The low viscosity formula not only promotes deeper concrete penetration for superior substrate adhesion, it also generates a higher propensity for sealing and blocking moisture drive than standard epoxy flooring products.

### EPOXY HARDENER - SELECTION GUIDE

EnviroGrip™ 403 offers you two types of hardeners depending on application demands and ambient temperature conditions. An appropriate hardener (Side B) should be chosen for the best curing results. Our products have a "S" or "F" at the end of the product name. [i.e. "EnviroGrip™ 403 S"] to denote the different system requirements. If in doubt as to what correct Side B to use, please ask us.

**"S" - Standard Curing Hardener** allows an application ranging between 50°F to 80°F. This hardener is our primary workhorse, a well-rounded system, perfect for versatile applications.

**"F" - Fast Curing Hardener** designed for faster set times, or lower temperature application ranging between 40°F to 60°F.

### TYPICAL USES

- Manufacturing & Warehouse Floors
- Laboratories
- Mechanical Rooms
- Animal Care Areas
- Shop Floors
- Loading Docks
- Pharmaceutical Plants
- Retail Stores
- Multiple-Unit Housing
- Institution Facilities
- Excellent Moisture Blocker
- Underneath any Coatings Showing
- Concrete Contamination
- Underneath Various Floorings Such as Carpet, Wood, Rubber, Vinyl, Tile, & Linoleum/PVT

### BENEFITS

- 100% Solids, Low VOC, Low Odor
- Vapor Control for High Moisture and High pH Slabs
- One-Coat Moisture Vapor Barrier
- Excellent Concrete Adhesion
- Standard and Fast Drying Times
- Low Viscosity for Deeper Concrete Slab Penetration
- Controlled Vapor Pressure up to 25lbs

### COLORS

Clear

### PACKAGING

3 gallons & 15 gallons (2 Sided Kits)

### COVERAGE

Approximately 100 sq.ft. per gallon @ 16 mils.

### STORAGE

This product has a maximum shelf life of one year when stored off the ground in a dry area at 50° to 110°F, in the original sealed container.

### HANDLING/SAFETY

Warning! Eye and skin irritant. May cause dermatitis and sensitization.

Always read and understand the product SDS. Avoid contact with eyes, skin or clothing. Avoid breathing vapor, mist or spray. Use with good ventilation.

### LIMITATIONS

This product is best suited for application in temperatures between 60°F and 90°F. Do not use to grout coat over aggregate. [Certain colors appear white when scratched such as blue based.] Higher temperatures will result in faster dry times and/or poor workability. Color may vary due to batch-to-batch variation, especially in higher temperature. Do not apply over ponding water.

## PHYSICAL CHARACTERISTICS

DESCRIPTION	PHYSICAL PROPERTIES
Components	2 Sides
Visual Appearance	High Gloss
Density	9.0 lb/gal
VOC content	<5g/l
Pot Life @ 70°F 50% RH	10-15 minutes (Fast) 15-20 minutes (Standard)
Equipment	brush, roller & flat rubber squeegee
Number of Coats	1 @ 16mils
Theoretical Coverage	100 ft <sup>2</sup> /gal 16 mils WFT
Dry to Touch @ 70°F, 50%RH	3-4 hours (Fast) 4-6 hours (Standard)
Light Traffic	n/a
Full Cure	n/a
Recoat Time @ 70°F	12 to 24 hours
Min. Application Temp.	50°F
Mix ratio by Volume	2:1 (A/B)

## CHEMICAL DATA @ 70°F

DESCRIPTION	DATA
pH Range	4 to 13
Inorganic Acids	Good
Organic Acids	Good
Alkali	Excellent
Solvents	Good
Hydrocarbons	Good

## MECHANICAL CHARACTERISTICS

HARDENER TECH DATA	STANDARD	FAST
Surface Prep Require	ICRI CSP-3, Primed	ICRI CSP-3, Primed
Adhesion, ASTM D7234	>400 PSI, Concrete Failure	>400psi, Concrete Failure
Hardness, Konig (15mils) ASTM D4366	95	100
Tensile Strength, ASTM D2370	7500 psi	7500 psi
Tensile Elongation, ASTM D2370	2.0%	1.5%
Compression, ASTM D695	10000 psi	10000 psi
Hardness (Shore D), ASTM D2240	70-80	75-85
Water Absorption, ASTM D570	<0.1%	<0.1%
Flame Test, ASTM D648	Class 1	Class 1
Abrasion Resistance, ASTM D4060	30 mg loss	30 mg loss
Coefficient of Friction, ASTM D2047	0.7 smooth	0.7 smooth
Impact Resistance, ASTM D2794	160 in/lb	160 in/lb
Permeance ASTM E96	0.017 (gr/ft <sup>2</sup> /hr/inHg) 100 sqft/gal @ 16 mils	0.022 (gr/ft <sup>2</sup> /hr/inHg) 100 sqft/gal @ 16 mils



## FIRST AID

In case of contact:

1. Eyes: Immediately flush with water for at least 15 minutes.
2. Skin: Immediately remove from skin with dry cloth followed by thorough washing with soap and water.
3. Inhalation: Remove to fresh air. If breathing is difficult, give oxygen.
4. Ingestion: Immediately call a Poison Center/Doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position.

## CAUTION

Always read and understand the specific product data guide and SDS sheets before using this product. For more information contact Poly-Tuff Systems International.

## CHECK THE CONCRETE

Concrete must be structurally sound and free of curing membrane, paint or other sealer. If you suspect that the concrete has been previously sealed, call Poly-Tuff Systems International technical support for further instructions.

## CHECK FOR MOISTURE

Concrete must be dry before application of this floor coating material. Concrete moisture testing must occur. Calcium chloride testing or "In-situ" relative humidity testing is recommended. Test methods can be purchased at [www.astm.org](http://www.astm.org), see ASTM F1869-11 or F2170-11, respectively or follow manufacturer's instructions. Readings must be below the defined threshold as specified for each Poly-Tuff Systems International system to be installed directly to the concrete substrate. Please refer to the appropriate Technical Data Sheet for this information.

## CHECK THE TEMPERATURE & HUMIDITY

Floor temperature and materials should be between 65°F (18°C) and 90°F (32°C). Humidity must be less than 95%. DO NOT coat unless floor temperature is more than (5°F) over the dew point.

## 1. SURFACE PREPARATION

Requires ICRI CSP 3

This product requires proper surface profile to perform as expected. Substrate must be mechanically profiled (ASTM 4259-83), clean, sound, and dry.

## 2. APPLICATION EQUIPMENT

Tools: 3" Disposable brush, low speed drill (450 rpm) with a 3.5" Jiffler blade, 3/8" nap non-shedding phenolic core roller, and flat rubber squeegee.

## 3. MIXING

The temperature of the (A) and (B) portions should be between 70°F and 80°F (20°-25°C). Mix them separately to ensure a uniform consistency. For a 3-gallon kit add (Side-B) into (Side-A) in a 3.5-gallon bucket. Mix contents thoroughly until all components are completely incorporated

and no streaking is observed. Thinning is not recommended. The portions of each side is accurately measured to ensure optimum product performance. Pouring from one container to the other (boxing) during mixing is very helpful in ensuring complete mixing. Mix for 2 minutes.

## 4. ROLL ON

After mixing all contents as instructed, immediately pour out into a ribbon on the surface. Squeegee the material out evenly and check for desired film thickness by using a wet-film thickness gauge. Back-rolling and then cross rolling is critical. Allow to dry minimum of 12 hours before recoat.

## CLEAN-UP

Clean-up mixing station, tools and application equipment immediately after completion. Use suitable solvent as specified by Poly-Tuff Systems International's technical services team or if permissible by law, xylene, as a general over-the-counter solvent. Observe all fire hazards, legal, and health and safety precautions when handling or storing solvents, particularly in confined spaces. Make sure the working area is well ventilated at all times during application and curing times.

## DISPOSAL

Dispose all excess materials, packaging, and other waste in accordance with federal, state, and local regulations.

## MAINTENANCE

Occasionally inspect the installed floor by spot cleaning and spot repairing any damaged or cracked areas. To prolong the life of the flooring system, a daily cleaning maintenance program is highly recommended to ensure the floor is safe for its intended purpose.

## TECHNICAL SUPPORT

For any application questions, please call our Poly-Tuff Systems International technical team. PLEASE SEE SAFETY DATA SHEET (SDS) FOR SAFETY AND PRECAUTIONS.

## USE PRODUCT AS DIRECTED.

## KEEP OUT OF THE REACH OF CHILDREN.

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Please read all information in the General & Safety Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with the PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

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