

**APPENDIX C**  
**VAPOR BARRIER TECHNICAL SHEETS**

# 2500 L.V.

PRODUCT CODE: 001-2500L

## LOW VISCOSITY 25% CURING AND SEALING COMPOUND

### PRODUCT DESCRIPTION

**2500 L.V.** is a low viscosity 25% solids solvent based acrylic copolymer curing and sealing compound, as well as a dust-proofer for concrete surfaces. **2500 L.V.** offers improved resistance to rain, the sun, freezing temperatures, stains, and other pollutants that sometimes can be hazardous to concrete. **2500 L.V.** forms a superior moisture retentive film on freshly placed concrete.

### BENEFITS/FEATURES

- ♦ Can be used as a means of dustproofing most concrete surfaces.
- ♦ It's low viscosity formula makes this product very easy to spray.
- ♦ Formulated with ease of use in mind, it sprays or rolls out smooth with no roller streaks.
- ♦ It's ease of use, medium gloss, and low cost make this a contractor's favorite.

### RECOMMENDED APPLICATIONS

**2500 L.V.** is recommended for both interior and exterior freshly placed, finished, and aged concrete where a medium gloss solvent based curing and sealing compound is specified.

### TECHNICAL INFORMATION

Solids.....	25%	Wet Appearance.....	Clear
Drying Time.....	1 - 2 hours	Dry Appearance.....	Clear with Medium Gloss
Re-Coat Time.....	4 - 24 hours	VOC Content.....	<700 g/l
Foot Traffic.....	4 - 6 hours	Blush Resistance.....	Superior
Wheel Traffic.....	24 - 48 hours	Solvent Resistance.....	Minimal
Application Temp.....	40°F - 85°F	Concrete Adhesion.....	Excellent

\*\*\*Please note that low air and/or concrete temperatures and/or relative humidity may extend drying times. Follow recommended coverage rates for best results.

### SPECIFICATIONS/COMPLIANCES

ASTM C 309, Type 1, Class A & B    ASTM C 1315, Type 1, Class C    AASHTO Specification M-148, Type 1, Class A & B  
DRIED COATING IS USDA ACCEPTED

### APPROXIMATE COVERAGE RATES

<u>Application Surface</u>	<u>First Coat</u>	<u>Optional Second Coat</u>
New (unsealed) concrete	250-350 ft <sup>2</sup>	350-400 ft <sup>2</sup>
Old (sealed) concrete	350-400 ft <sup>2</sup>	350-400 ft <sup>2</sup>

\*Coverage rates vary depending upon surface porosity and texture, and application method. Excessive build up should be avoided.

### SHELF LIFE

**2500 L.V.** has a shelf life of up to two years in it's original, sealed, unopened container.

### PACKAGING

**2500 L.V.** is packaged in 1 gallon cans, 5 gallon pails, and 55 gallon drums.

# SURFKOAT™

### SURFACE KOATINGS, INC.

12049 A Lebanon Rd.    Mount Juliet, TN 37122  
Phone: (615) 773-1616    Fax: (615) 773-1457  
Visit us online at: [www.SurfKcoat.com](http://www.SurfKcoat.com)

CURE & SEALS

2500 L.V.

## INSTRUCTIONS FOR USE

**SURFACE PREPARATION:** Concrete surface must be clean and free of all contaminants and water. Do not apply if rain is forecast within 24 hours. If moisture is present or if the surface is not clean and free of all contaminants, the sealer may have white spots and have premature de-lamination and failure. May be applied when damp (not "wet") to freshly placed concrete surfaces.

Substrate temperature must be no less than 40 degrees F and not exceed 80 degrees F. If applied outside these limits the sealer may not achieve adequate film formation and may have excessive air entrapment, bubbles, blushing or hazing.

**MIXING:** Stir well before using. Material may separate during long term storage.

**APPLICATION:** Apply using an 3/8" long nap roller cover using long even uniform strokes at approximately 250-400 square feet per gallon depending on porosity and texture of substrate. An airless sprayer containing a .519 tip size may be used as well. Thick or puddle areas may prevent the solvent from evaporating and may be susceptible to moisture intrusion which may cause milky white spots. Applying too thin may cause sealer to prematurely delaminate, flake or wear away. Allow sealer to dry for 24 hours for light traffic and at least 48 hours for heavy traffic. If applying two coats, wait approximately 4 – 6 hours between coats.

**PLEASE NOTE:** It is always recommended to test the product in a small, inconspicuous area (on the same concrete substrate) for desired results prior to application. Coverage rates may vary for all coatings and substrates depending on porosity, density, texture etc. If applying by spray method, extended coverage rates may be achieved, but be aware that less material will be applied and inadequate film formation or performance expectations may be limited.

## CLEAN-UP

Use Xylene. Dispose of containers in accordance with local and federal regulations.

## PRODUCT REMOVAL

Dried, cured sealer may be removed with a commercial paint stripper, such as *Citrus Strip 100* or by using a diamond grinding method, sandblasting method or similar mechanical action.

## PRECAUTIONS AND LIMITATIONS

- ▶ **2500 L.V.** will not freeze during storage, however, allow temperature to rise to 50 degrees F prior to application.
- ▶ All HVAC ventilation ducts should be somehow blocked prior to application so solvents fumes are not distributed.
- ▶ Keep away from open flames. **2500 L.V.** is flammable and is very susceptible to ignition.
- ▶ It is not recommended to apply **2500 L.V.** over carpet, tile, and other types of floor adhesives.
- ▶ Coverage rates depend upon many conditions including application method, surface porosity, applicator, ect.
- ▶ **2500 L.V.** was designed as a cure & seal and to be applied in one-two medium coats, not one thick coat.
- ▶ Please be aware that this product when cured may be slippery when wet.
- ▶ **2500 L.V.** is not resistant to brake fluid, gasoline, and many similar products.
- ▶ It is not recommended to thin **2500 L.V.**. Improper thinning may cause sealer to delaminate in a short time frame.
- ▶ **2500 L.V.** may darken the surface of many new and existing concrete slabs. Test prior to use.

## SPECIAL NOTES

Please consult Material Safety Data Sheet (MSDS) and read Warranty information prior to use. This information can be requested by contacting customer service at 615-773-1616.

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**Mark A. Franciosi**Technical Service Engineer  
Building Envelope

April 12, 2012

Andy C. Lockwood  
Senior Project ManagerP.W. Grosser Consulting  
630 Johnson Avenue, Suite 7  
Bohemia, NY 11716

Phone: 631.589.6353

RE: 50 North 1<sup>st</sup> Street Brooklyn, NY

Dear Mr. Lockwood,

I have reviewed Tables 1-9 of the Phase II Environmental Site Assessment Report prepared by P.W. Grosser Consulting, dated March 2007 for the above referenced project:

The identified contaminants at the levels reported will not have an adverse effect on the waterproofing or vapor barrier properties of Preprufe<sup>®</sup> 300R, Preprufe<sup>®</sup> 160, or Florprufe<sup>®</sup> 120 systems, provided standard design and application procedures are followed. Standard installation instructions and details can be found on our website at [www.graceconstruction.com](http://www.graceconstruction.com).

If you have any questions, please feel free to call me at the number above.

Sincerely,



Mark A. Franciosi

cc: J. Ridgeway, K. Burke – WR Grace

## Florprufe™ 120

### Integrally bonded vapor protection for slabs on grade

#### Description

Florprufe™ 120 is a high performance vapor barrier with Grace's Advanced Bond Technology™ that forms a unique seal to the underside of concrete floor slabs.

Comprising a highly durable polyolefin sheet and a specially developed, non-tacky adhesive coating, Florprufe 120 seals to liquid concrete to provide integrally bonded vapor protection.

Florprufe exceeds ASTM E1745 Class A rating.

#### Use

Florprufe 120 is engineered for use below slabs on grade with moisture-impermeable or moisture-sensitive floor finishes that require the highest level of vapor protection.

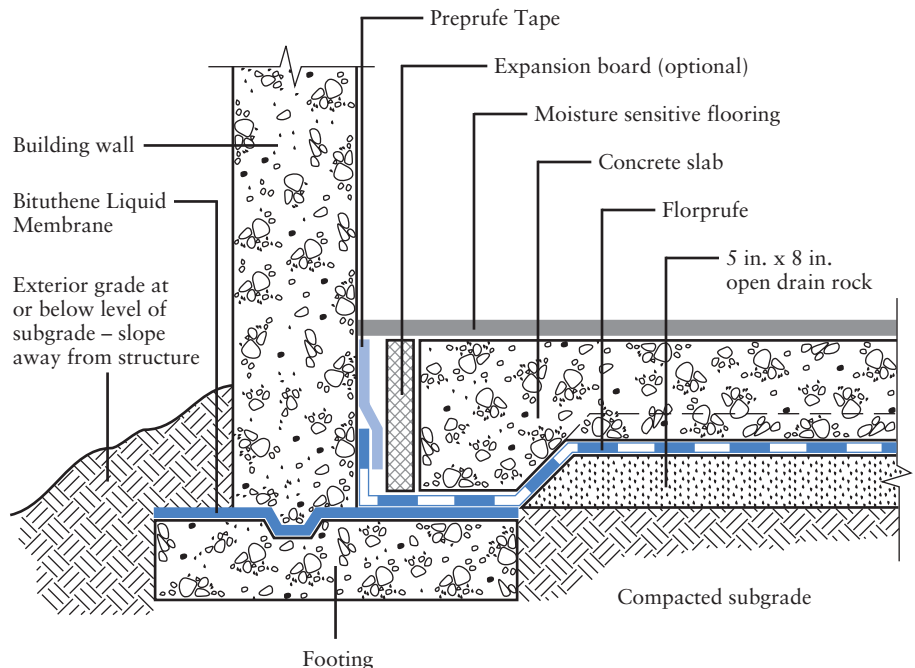
Florprufe complies with the latest recommendations of ACI Committees 302 and 360, i.e. for slabs with vapor sensitive coverings, the location of the vapor barrier should always be in direct contact with the slab<sup>1</sup>.

The membrane is loose laid onto the prepared sub-base, forming overlaps that can be either mechanically secured or taped. The unique bond of Florprufe to concrete provides continuity of vapor protection at laps. Alternatively, if a taped system is preferred, self-adhered Preprufe® Tape can be used to overband the laps.

Slab reinforcement and concrete can be placed immediately. Once the concrete is poured, an integral bond develops between the concrete and membrane.

#### Advantages

- Forms a powerful integral seal to the underside of concrete slabs
- Protects valuable floor finishes such as wood, tiles, carpet and resilient flooring from damage by vapor transmission
- Direct contact with the slab complies with the latest industry recommendations
- Remains sealed to the slab even in cases of ground settlement
- Ultra low vapor permeability
- Durable, chemical resistant polyolefin sheet
- Lightweight, easy to apply, kick out rolls
- Simple lap forming with mechanical fixings or tape



Typical Assembly

<sup>1</sup> ACI 302.1R-96 Addendum

## Supply

### Florprufe 120

Supplied in rolls	1.2 m x 35 m (4 ft x 115 ft)
Roll area	42 m <sup>2</sup> (460 ft <sup>2</sup> )
Roll weight	37 kg (81 lbs) approx.

### Ancillary Products

Preprufe Tape is packaged in cartons containing 4 rolls that are 100 mm x 15 m (4 in. x 49 ft). Bituthene Liquid Membrane is supplied in 5.7 L (1.5 gal) pails.

## Physical Properties: Exceeds ASTM E1745 Class A rating

Property	Typical Value	Test Method
Color	White	
Thickness (nominal)	0.5 mm (0.021 in.)	ASTM D3767 – Method A
Water Vapor Permeance	0.03 perms	ASTM E96 – Method B <sup>1</sup>
Tensile Strength	68 lbs/in.	ASTM E154 <sup>1</sup>
Elongation	300%	ASTM D412
Puncture Resistance	3300 gms	ASTM D1709 <sup>1</sup>
Peel Adhesion to Concrete	>4 lbs/in.	ASTM D903

1. Test methods that comprise ASTM E1745 standard for vapor retarders

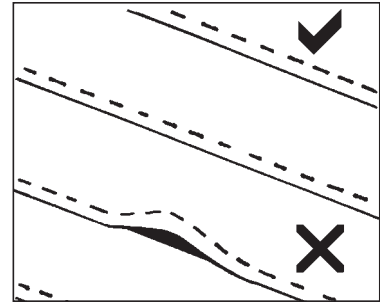


Figure 1

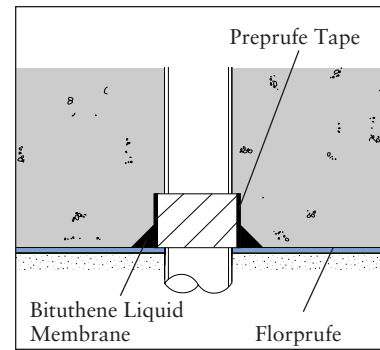


Figure 2

## Installation

### Health & Safety

Refer to relevant Material Safety Data Sheet. Complete rolls should be handled by 2 persons.

Florprufe 120 can be applied at temperatures of -4°C (25°F) or above. Membrane installation is unaffected by wet weather. Installation and detailing of Florprufe 120 are generally in accordance with ASTM E1643-98.

Prepare substrate in accordance with ACI 302.1R Section 4.1. Install Florprufe 120 over the leveled and compacted base. Place the membrane with the smooth side down and the plastic liner side up facing towards the concrete slab. Remove and discard plastic liner. End laps should be staggered to avoid a build up of layers.

Succeeding sheets should be accurately positioned to overlap the previous sheet 50 mm (2 in.) along the marked lap line.

### Laps

#### 1. Mechanical fastening method –

To prevent the membrane from moving and gaps opening, the laps should be fastened together at 1.0 m (39 in.) maximum centers. Fix through the center of the lap area using 12 mm (0.5 in.) long washer-head, self-tapping, galvanized screws (or similar) and allowing the head of the screw to bed into the adhesive compound to self-seal. It is not necessary to fix the membrane to the substrate, only to itself. **Ensure the membrane lays flat and no openings occur.** (See Figure 1.) Additional fastening may be required at corners, details, etc. Continuity is achieved once the slab is poured and the bond to concrete develops.

OR

#### 2. Taped lap method –

For additional security use Grace Preprufe Tape to secure and seal the overlaps. Overband the lap with the 100 mm (4 in.) wide Preprufe Tape, using the lap line for alignment. Remove plastic release liner to ensure bond to concrete.

### Penetrations

Mix and apply Bituthene Liquid Membrane detailing compound to seal around penetrations such as drainage pipes, etc. (See Figure 2 and refer to the Bituthene Liquid Membrane data sheet, BIT-230.)

### Concrete Placement

Place concrete within 30 days. Inspect membrane and repair any damage with patches of Preprufe Tape. Ensure all liner is removed from membrane and tape before concreting.

For Technical Assistance call toll free at 866-333-3SBM (3726).

**web** Visit our web site at [www.graceconstruction.com](http://www.graceconstruction.com)

W. R. Grace & Co.-Conn.

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Cambridge, MA 02140

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