

# Vapor Barrier Membranes

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## 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.

### 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

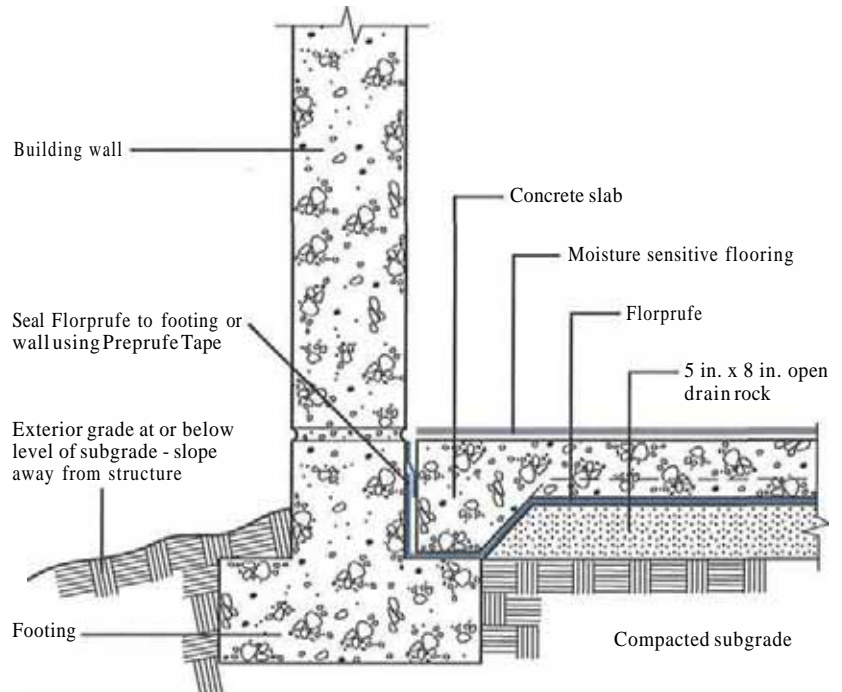
### Use

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.



Typical Perimeter Detail

<sup>1</sup> ACI302.1R-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).  
 Grace LM2 is supplied in 5.7 L (1.5 gal) pails.

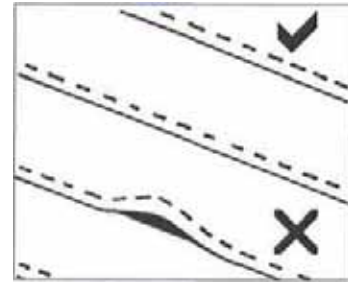


Figure 1

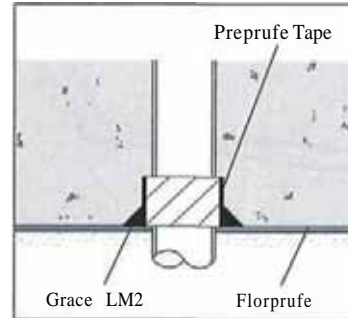


Figure 2

## Physical Properties

Property	Typical Value	Test Method
Color	Light blue	
Thickness (nominal)	0.5 mm (0.021 in.)	ASTM D 3767 Method A
Water Vapor Permeance	0.03 perms	ASTM E 96 Method B
Tensile Strength	68 lbs/in.	ASTM E 154
Elongation	300%	ASTM D 412
Puncture Resistance	41 lbs	ASTM D 4833
Peel Adhesion to Concrete	>4 lbs/in.	ASTM D 903

## 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 E 1643-98.

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 blue-colored side down and the white-coated side facing towards the concrete slab. Remove and discard release 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. Overhand 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 Grace LM2 liquid detailing compound to seal around penetrations such as drainage pipes, etc. (See Figure 2 and refer to the Grace LM2 data sheet, BIT-306.)

### 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 us toll free at 866-333-3SBM (3726).

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