

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.

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

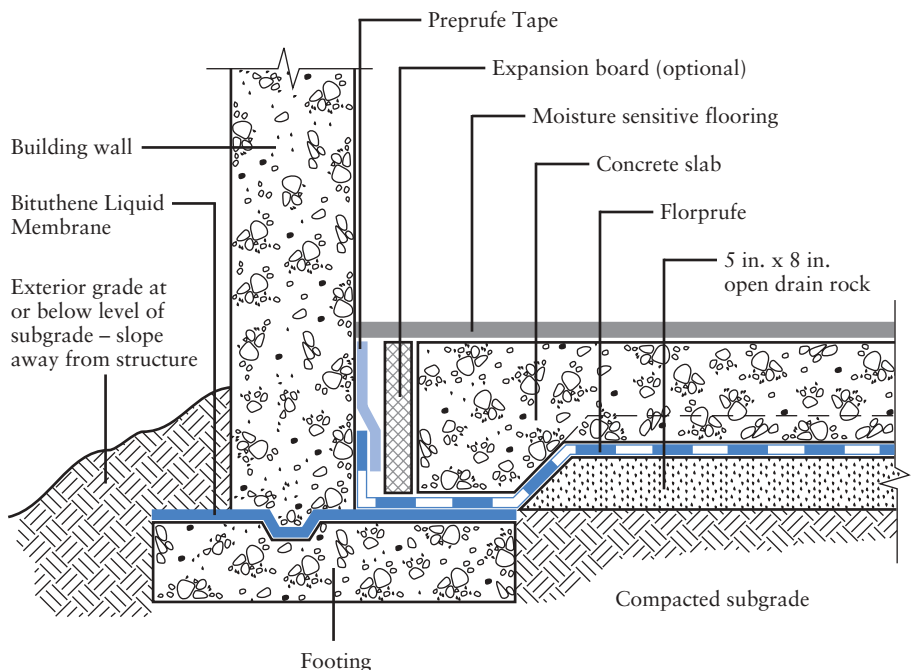
Use

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 slab¹.

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 Assembly

¹ 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 ² (460 ft ²) |
| Roll weight | 32 kg (70 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 ¹ |
| Tensile Strength | 65 lbs/in. | ASTM E154 ¹ |
| Elongation | 300% | ASTM D412 |
| Puncture Resistance | 3300 gms | ASTM D1709 ¹ |
| Peel Adhesion to Concrete | >4 lbs/in. | ASTM D903 |

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

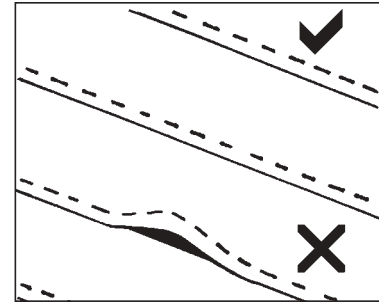


Figure 1

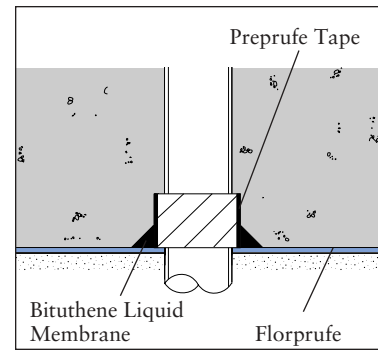


Figure 2

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

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