

Technical Data

VBC-350 (31mil) Composite Vapor Retarder

DIVISION: 072600,033000

Version: January 1, 2024

1.0 PRODUCT NAME

**VBC-350 (31mil) Composite Vapor Retarder
Class A Vapor Retarder**
Exceeds ASTM E 1745 class A, B & C
Vapor Retarder Specifications

2.0 MANUFACTURER

Inteplast Group
9 Peach Tree Hill Rd., Livingston, NJ 07039
Technical Assistance
Tel: (877) 535-0555 Fax: (800) 709-6002

3.0 PRODUCT DESCRIPTION

VBC-350 (31 mil) Composite is a high performance under slab vapor retarder developed for the construction industry to retard moisture migration through concrete slabs. It may also be used to control radon, methane, sulphates and many other soil contaminants. The ribbed side has much higher Coefficient of Friction (0.6) than the competitor's smooth surface (around 0.2 COF). The other side with geotextile fabric provides a mechanical bond with concrete when the fabric side facing concrete pour. This adhesion strength greatly improves slab protection from moisture migration by maintaining intimate contact with the slab. Typical uses include projects with unstable (expansive or alleviated) soil, void formed slabs and high water tables.

3.1 COMPOSITION

VBC-350 (31 mil) Composite is manufactured to the highest standards with proprietary polyolefin resins. The manufacturing process for the **Barrier-Bac VBC-350 (31 mil) Composite** is a 16 mil, multi-layer, co-extruded, cross-laminated system. The membrane is then laminated with a 15 mil non-woven polypropylene geotextile. **Barrier-Bac VBC-350 (31 mil) Composite** is manufactured in 6 ft × 150 ft rolls (900 ft²) and weighs approximately 94 lbs per roll.

4.0 TECHNICAL DATA

Applicable Standards:

- ASTM, American Society for Testing & Materials
- ASTM E 1745 Standard Specification for Water Vapor Retarders used in Contact with Soil or Granular Fill Under Concrete Slabs.
- ASTM E 154 Standard Test Methods for Water Vapor Retarders used in Contact with Earth Under Concrete Slabs, on Walls, or as a Ground cover.
- ASTM D 1709 Standard Test Methods for Impact Resistance of Plastic Films by the Free Falling Dart Method.
- ASTM E 96 Standard Test Method for Water Vapor Transmission of Materials. ASTM D 882 Standard Test Method for Tensile Properties of Thin Plastic Sheeting.

Table 1: Physical Properties of **VBC-350 (31 mil) Composite Vapor Retarder**

Water Vapor Permeance	New Material ASTM E154 Sec.7 (Test Method E96)	0.007 (US Perms)
	After Conditioning ASTM E154 Sec. 8 (Test Method E96)	0.009 (US Perms)
	ASTM E154 Sec. 11 (Test Method E96)	0.025 (US Perms)
	ASTM E154 Sec. 12 (Test Method E96)	0.011 (US Perms)
	ASTM E154 Sec. 13 (Test Method E96)	0.013 (US Perms)
Max Peel Adhesion to Concrete	ASTM E 903	8 lbs / in
Tensile Strength	ASTM D 882	83.75 lbf/in
Puncture Resistance	ASTM D 1709	3960 grams
Coefficients of Friction	ASTM D 1894	0.6
Radon Diffusion Coefficient	K124/02/95	2.4 x 10 ⁻¹¹ m ² /S
Methane permeance	ASTM D 1434	90.59 cm ³ /(m ² . Atm .Day)
Elmendorf Tear	ASTM D 1922	9,500 gram
Puncture-Propagation Tear	ASTM D 2582	20,000 gram

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4.0 TECHNICAL DATA (Continued)

- ASTM E 1643 Standard Practice for installation of Water Vapor Retarders used in Contact with Earth or Granular Fill Under Concrete Slabs.
- ASTM D 903 Standard Test Method for Peel or Stripping Strength of Adhesive Bonds
- ASTM D 1894 Standard Test Method for Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting.
- ASTM D 1434 Standard Test Method for Determining Gas Permeability Characteristics of Plastic Film and Sheeting.
- ASTM D 1922 Standard Test Method for Propagation Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method.
- ASTM D 2582 Standard Test Method for Puncture-Propagation Tear Resistance of Plastic Film and Thin Sheeting
- ACI, American Concrete Institute
- ACI 302.1 R-04 Minimum Thickness (10 mil)
- K124/02/95 Method To Test Radon Diffusion Coefficient in Radon-Proof Membrane.

5.0 INSTALLATION

Barrier-Bac VBC-350 (31 mil) Composite shall be installed with non-woven geo-textile facing up over tamped earth, sand or aggregate base by unrolling and completely covering area to receive building slab or specified area. Overlap all seams a minimum of 6 inches and seal with Barrier-Bac White Bond Tape. All penetrations must be sealed with Barrier-Bac membrane and Barrier-Bac White Bond Tape per manufacturer's recommendations. In case project design specifications require or it is needed to use additional adhesive to secure Barrier-Bac White Bond Tape, we recommend using 3M™ Scotch-Weld™ HoldFast 70 Cylinder Spray Adhesive Clear to apply on the geo-textile surface overlap prior to tape application.

6.0 AVAILABILITY & COST

Barrier-Bac VBC-350 (31 mil) Composite is available nationally through our network of building supply companies. Please contact our corporate office for a distributor in your area. Barrier-Bac VBC-350 (31 mil) Composite is cost efficient. Pricing is obtained by contacting your local Barrier-Bac distributor or sales representative.

7.0 WARRANTY

We warrant and guarantee our specifications as published. Published test results are based upon accepted industry practice as well as the test methods called for and listed on our test documents. We believe, to the best of our knowledge, that our published results are accurate and reliable and that they represent our vapor retarder membrane. Inteplast Group cannot control site conditions and improper installation practices. Therefore, no warranty, expressed or implied, is given, including those of merchantability, fitness for a particular purpose or any other matter with respect to the product.

8.0 MAINTENANCE

No maintenance is required.

9.0 TECHNICAL SERVICES

Technical services for all of our products are obtained by calling our corporate office.

Corporate Office: (877) 535-0555

10.0 FILING SYSTEMS

Barrier-Bac brochures are available from Barrier-Bac distributors, sales representatives, Inteplast Group, and on our web site: www.BarrierBac.com



INTEPLAST GROUP®

OFFICE: 9 Peach Tree Hill Rd., Livingston, NJ 07039
PLANT: 101 Inteplast Blvd., Lolita, TX 77971

TEL: 877-535-0555

FAX: 800-709-6002

E-MAIL: info@BarrierBac.com

WEBSITE: www.BarrierBac.com / www.inteplast.com