

# Durex® Epotel Moisture Block 100

## Moisture Vapour Mitigation and Hydrostatic Pressure Control Coating System for Concrete floors

- Description** Durex® Epotel Moisture Block 100 is a two-component, 100% Solids Epoxy, Class 1 Vapour Diffusion Retarder formulated to block hydrostatic pressure by suppressing moisture vapour from transmitting through concrete substrates. Durex® Epotel Moisture Block prevents the penetration of moisture from within or beneath the concrete slab to penetrate through the surface. It is designed to protect subsequent impermeable floor coverings/coatings from delaminating. It can be applied on freshly poured concrete slabs after 7 days.
- Uses** Durex® Epotel Moisture Block 100 is used as a first coat penetrating primer over freshly poured or existing concrete slabs to control moisture by preventing hydrostatic pressure from penetrating through the coating. It is used as a moisture blocking coating under a variety of impermeable floor coverings to prevent blistering and delamination. It is to be used under impermeable flooring systems such as traffic bearing waterproofing coatings, 100% solids epoxy coatings, vinyl tiles and sheeting, rubber-backed carpet and wood floors.
- Ideal For**
- Construction projects with tight schedules
  - Parking Garages coated with traffic bearing waterproofing coatings
  - Impermeable flooring systems such as stones, ceramics, vinyl composition tiles, hardwood, laminate flooring and carpets, Seamless Flooring and Terrazzo Floors
  - Existing slabs with high levels of hydrostatic pressure
  - Moisture Blocking Primer for a variety of Durex® Flooring Systems
- Features**
- Class 1 Vapour Diffusion Retarder
  - Very low permeance; Less than 0.1 perms
  - Suppresses moisture from penetrating through the slab
  - Can be used over Green Concrete: 7 days after initial pour
  - Speeds up construction time
  - Virtually odourless and solvent free
  - Excellent adhesion to damp concrete (520psi)
  - Unaffected by high pH levels (up to 14)
  - May be installed on floors with very high relative humidity

ASTM E96-10 TEST RESULTS (Test method for Vapour Transmission of Materials)		
Durex® Epotel Moisture Block		
Concrete Cure Time	Average Measure Permeance	Dry Film Thickness (DFT in Mils)
7 days	<0.1 perms	22
28 days	<0.1 perms	17

### TECHNICAL DATA

PHYSICAL PROPERTIES	
Colour	Clear
Resin	Epoxy
Coverage	1.8 m <sup>2</sup> /L (72 ft <sup>2</sup> /gal) @ 22 mils 2.3 m <sup>2</sup> /L (95 ft <sup>2</sup> /gal) @ 17 mils
Mix Ratio	Part A (Resin): Part B (Catalyst) 2:1 by volume
Cure Time @ 23 degrees C	To recoat: 8-24 hours To touch: 4 hours Light traffic: Fully cured:
Reducer/Clean-up	Xylene
V.O.C.	0 g/L

PERFORMANCE PROPERTIES	TEST METHOD	RESULTS
Percent Solids	ASTM D7232-06	100%
Viscosity (Brookfield) 23°C	ASTM D2196	800 cps (clear)
Specific Gravity	ASTM D333	1.07 (Clear)
Compressive Strength	ASTM 695-85	14, 200 psi (98 MPa)
Tensile Strength	ASTM 695-85	10,000 psi (69 MPa)
Bond Strength	ASTM C1583	520 PSI (3.6 MPa)
Elongation	ASTM D638-86	8.0%
Flexural Strength	ASTM D790-86	16,100 psi (111 MPa)
Abrasion Resistance	ASTM D4060-90	0.033

**Packaging** Durex® Epotel Moisture Block is packaged as a kit (Part A & B) in 56.7 L (15 gal), 18.9 L (5 gal) and 3.78 L (1 gal) units.

**Storage Conditions** Store Durex® Epotel Moisture Block in a dry, vented, waterproof location, stacked off the ground, out of direct sunlight and other detrimental conditions. Store liquid materials in ambient temperatures above 10 degrees C and below 35 degrees C. **KEEP FROM FREEZING.**

**Surface Preparation** Surfaces to be coated shall meet industry standards as defined in ACI Committee 201 Report “Guide to Durable Concrete”, be shot blasted to achieve a profile consistent with ICRI CSP-3 and be clean of debris or other materials deleterious to adhesion. New concrete and masonry mortar shall be allowed to cure for a minimum of 7 days. Clean surfaces with a wire brush and/or power washer to remove dirt, loose materials and debris. Allow surfaces to thoroughly dry prior to application.

**Moisture Testing** Testing of moisture content is suggested installation practice to properly determine the level of moisture in the substrate. Test using either ASTM-F1869, the anhydrous calcium chloride moisture vapor emission rate test or ASTM-F2170, the relative humidity probe test.

**Mixing Instructions** Durex® Epotel Moisture Block is supplied as a kit based on a mixing ratio. Mixing shall be carried out in a clean, rust-free container, and mixed by a power drill at 400-500 rpm maximum. Mix two (2) parts by volume of Part A resin with one (1) part by volume of Part B catalyst. Blend the mixture for at least two (2) minutes. Durex® Epotel Moisture Block 100 must be applied immediately for best working time and results.

**Application** THOROUGHLY MIX PRIOR TO USE. DO NOT DELUTE WITH XYLENE OR OTHER ADDITIVES. Durex® Epotel Moisture Block is designed as a one-coat system. Apply materials at ambient temperatures above 5 degrees C. Materials to be applied by notched squeegee to a thickness of 17 to 22 mils as specified depending on moisture transmission and substrate requirements. Immediately back-rolled using a lint-free 10mm roller. Back-roll to ensure complete coverage. Protect from water for 12 hours. Out-gassing and pin-holes may occur due to substrate voids. Contact a Durabond Technical Representative for treatment instructions. Subsequent flooring systems must be installed within 48 hours of installation after materials have cured for 12 hours.

**Durex® Protective Flooring Systems:** Durex® Urethane and Epoxy based Protective Flooring Systems may be applied directly to Durex® Epotel Moisture Block within 48 hours after initial cure.

**VCT, Sheet vinyl, Wood and Carpet:** Impermeable flooring systems such as VCT, wood vinyl, wood, carpet, etc. must be installed over Durex® Epotel Moisture Block within 48 hours after initial cure. Apply Durex Dur-A-Top 15 cementitious self-leveling underlayment at a minimum thickness of 1/8” within 48 hours over Durex Epotel Moisture Block for all water-based and porous flooring adhesives. Follow the adhesive and flooring manufacturer’s recommendations for installation of their product over porous or non-porous substrates. Apply adhesives to a test area to check for compatibility and performance before proceeding with remaining flooring installation.

**Cleaning** Wash tools and equipment immediately after use using Xylene.

## Limitations

- Not recommended for exterior slabs on grade where freeze/thaw conditions may exist
- Moisture content of concrete substrate must be  $\leq 6\%$  by weight
- Air and substrate temperatures must be 10 to 30 °C and maximum relative humidity 85 % (during application and curing)
- Substrate temperature must be 3 °C (5.5 °F) above measured dew point.
- Do not apply while ambient and substrate temperatures are rising. Ensure there is no vapour drive at the time of application. Refer to ASTM D4263 Standard Test Method for visual indication of vapour drive.
- Freshly applied material should be protected from dampness, condensation and water for at least 72 hours.
- Use of unvented heaters and certain heat sources may result in defects (e.g. blushing, whitening, debonding, etc.).

## Health and Safety

Use under well-ventilated conditions with rubber gloves when handling the product. Avoid contact with eyes and prolonged contact with skin. If contact occurs, flush immediately with water and seek medical attention if irritation occurs. Harmful if swallowed. Do not induce vomiting. Drink 1-2 glasses of water or milk. Keep product out of reach of children. Read published Material Safety Data Sheet for additional information.

## Warranty

Durabond warrants this product is free of manufacturing defects, and will replace at no charge, provided it has been applied within 12 months of purchase, it has been installed for uses suitable for this product and in accordance with the manufacturer's instructions.

## Technical Services

Technical support is available upon request at [info@durabond.com](mailto:info@durabond.com). For the latest version of this data sheet, please visit our website at [www.durabond.com](http://www.durabond.com), call toll free at 1-877-DURABOND (387-2266) or speak with your Durabond Technical Coatings Ltd. sales representative.

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