

ROOF DECKS SHOULD BREATHE



BREATHEx ENGINEERED TO BREATHE



ADVANCED SYNTHETIC ROOFING UNDERLAYMENT

TODAY'S ROOFERS and HOMEOWNERS have many choices in synthetic underlayments to install beneath shingles. This can be confusing. Shingle underlayments must serve three very important functions:

- 1 they should act as a secondary form of protection against any leaks that may occur,
- 2 they should act as a temporary roof cover before the shingle installation, and
- 3 they should not trap moisture against the wood roof deck.



THE BREATHEx ADVANTAGE:

- Allows water vapour to escape a roof deck.
- Provides leak protection.
- Walkability: Industry leading slip resistant surface in wet conditions.
- Tough, rubber-like backing keeps the sheet in place and allows for repositioning as needed.
- Lightweight, fast and easy to install.
- Can be used under asphalt, wood, metal or slate roofing.
- Pliable for application in any peak or valley and in low temperatures.
- Light grey colour for cooler working surface.
- 20-year limited warranty.

THE BREATHEX ADVANTAGE: IT WON'T TRAP CONDENSATION



ABOVE... AN EXCELLENT ROOFING JOB

An example of a new re-roof that will not trap roof top condensation because its underlayment is permeable... **Breathex**. Deck moisture can dry upwards to the shingle layer.

BELOW... DON'T LET THIS HAPPEN TO YOUR ROOF!

An example of a re-roof that did trap roof top condensation where a repair was done using a non-breather underlayment beneath the shingles.



NON-BREATHABLE UNDERLAYMENT WAS USED HERE.

VIEW OF WET DECK WHERE CONDENSATION WAS TRAPPED.

CAUTION: CHOOSE WISELY MANY ROOFING UNDERLAYMENTS DO NOT BREATHE

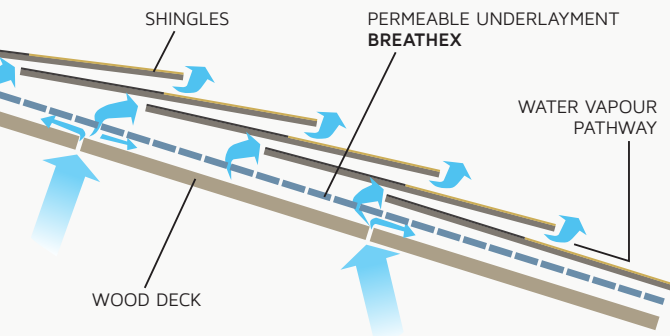
This photo of trapped moisture shows what can happen if attic humidity condenses on a roof top and cannot dry. Wood rot, mold, and structural damage can result. Condensation can happen in any structure where humid inside air meets a cold surface. On cold nights, the walls and roof are the coldest portion of any building. Building codes require that moisture barrier membranes in walls must be permeable. The intent of Building Codes is to avoid creating a condensing plane against any structural layer.

A photo of an actual roof deck immediately after all of the shingles were removed for a re-roof. The wet area where condensation was trapped had a repair done a few years earlier using a non-breathable underlayment beneath the shingles. The remainder of the roof deck was dry because it had a permeable asphalt felt underlayment beneath the original shingles. **This shows the clear advantage of using a breather beneath shingles... it will allow condensation to dry outwards to the shingle layer where wind and sun can disperse it.**

The advice presented herein strictly represents our own opinions on good roofing practices, where roof-top condensation might occur, and is not meant to discredit other products or methods.

	NOMINAL VALUE	UNIT	TEST METHOD
PHYSICAL TECHNICAL DATA			
WEIGHT	27	Lbs/Roll	
WIDTH	48	Inch	
LENGTH	250	Ft	
MECHANICAL			
TENSILE STRENGTH			ASTM D5034
MACHINE DIRECTION	50	Lbs/Inch	
CROSS DIRECTION	45	Lbs/Inch	
TEAR STRENGTH			ASTM D4533
MACHINE DIRECTION	20	Lbs	
CROSS DIRECTION	18	Lbs	
PUNCTURE RESISTANCE	100	Psi	ASTM D751
WATER RESISTANCE			
WATER RESISTANCE	Pass		ASTM D4869
EXPOSURE PERIOD	3	Months	ASTM G154
PERMEABILITY			
MVTR PERMEANCE	5	Perms	ASTM E96-A
MVTR PERMEANCE	14	Perms	ASTM E96-B
MEETS THE PERFORMANCE REQUIREMENTS OF ASTM D226			
MEETS THE PERFORMANCE REQUIREMENTS OF CSA A123.3			
HIGH TEMPERATURE STABILITY UNDER METAL ROOFING			
TEMPERATURE RANGE	-40°F to 240°F (-40°C to 115°C)		

A PERMEABLE ROOF ASSEMBLY ALLOWS CONDENSED ATTIC VAPOUR TO ESCAPE



HUMID ATTIC AIR AND VAPOUR CAN PASS THROUGH JOINTS IN THE ROOF DECK.

INSTALLATION INSTRUCTIONS

- Ensure that the roof deck is free of debris, old fasteners, or sharp protrusions that might puncture the underlayment.
- Keep the rolls in their protective bags prior to installation. This product has a unique polymer coating on one side which stops water penetration yet lets the product breathe. Dragging or scuffing the roll over a rough surface might damage the coating and create potential leak points.
- Place the sheet with the printed side up, with the bottom edge parallel with but slightly overhanging the eave of the roof. Then follow the 3" (7.6 cm) lap-lines for placement of each succeeding sheet. Vertical laps should be a minimum of 6" (15 cm). FOR LOW SLOPES, less than 3 in 12, lap the sheet 25" (63 cm) to the center lap-line for a double ply installation, as required by most shingle manufacturers.
- Fastening the sheet: Apply fasteners through the printed guide circles, tight and flush to the deck.
 - Acceptable Fasteners: 1" plastic cap roofing nails or standard 3/8" head corrosion resistant roofing nails.
 - Not Acceptable Fasteners: Staples
 - Fastener Spacing: Fasten at every circle "O" (6" spacing) on the overlapping edge and middle of each sheet.
 - For Extreme Wind Conditions: Add extra cap nails along bottom edges and middle of each sheet.
 - Optional Fastening: If covering with roofing immediately, the recommended nail spacing may be relaxed.
- Where seams or joints are specified to require sealant or adhesive, use a high quality, low solvent, asphalt roofing cement meeting ASTM D-4586 Type 1, Federal Spec SS-153 Type 1. Follow sealant manufacturer's application instructions. Also apply sealant over any holes created during installation or by mis-driven fasteners.
- Breathex is designed for a maximum of 3 months of exposure to UV but is not intended to be used as a temporary roof for that period. If used as a temporary roof during construction there may be potential for some leakage to occur during rain periods at fasteners or due to wind driven rain being forced under a lap. Damage due to such leaks is not covered by warranty.
- Always use traction soled footwear and observe safe roofing codes and practices required by OSHA Regulation Standard 29CFR, fall protection systems criteria and practices 1926.502. Follow all national fall protection standards and good roofing practices at all times.

NOTICE: Any deviation from this recommended installation guide may void the warranty.

For full installation instructions, see www.breathex.com

ASK YOUR LOCAL ROOFING SUPPLY DISTRIBUTOR FOR BREATHEX

Or call our office at the number's below.



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