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**INFORMATION/SPECIFICATION**



## Rub-R-Wall AIR/VAPOUR BARRIER

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Liquid Applied Air/Vapour Barrier  
ADVANCED COATINGS INC.

### 1. PRODUCT NAME

Air/vapour barrier:  
Rub-R-Wall Airtight

### 2. MANUFACTURER

Advanced Coatings Inc.  
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### 3. PRODUCT DESCRIPTION

**Basic Use:** Primarily intended as a non-accessible air/vapour barrier for all types of cavity wall construction e.g. over exterior face of inner wythe of masonry cavity wall.

New construction or retrofit.

For commercial, industrial and institutional applications.

**Composition and Materials:** Rub-R-Wall Airtight is a 100% rubber copolymer liquid applied air/vapour barrier membrane (hydrocarbon polymers in hydrocarbon solvents) that is spray applied to the substrate by manufacturer approved applicators.

Transition joints in the substrate to receive Rub-R-Wall Airtight are first sealed with Rub-R-Wall SA, a self-adhering, cold applied composite sheet membrane (transition strip). These strips, approximately 150 mm (6") wide, are located at beams, columns, changes in substrate material, and similar joints or connections to provide continuity of the air/vapour barrier assembly.

Rub-R-Wall Airtight meets all of the principal requirements and design criteria\* for a properly constructed air barrier for the building envelope, namely:

- resistance to air flow;
- structural soundness, capable of

- resisting wind and other loads, over its expected life span;
- continuity throughout the building envelope;
- be permanent if concealed.

**Thickness:** 1 mm (40 mils).

**Application Rate (over standard concrete block):** 2.6 to 3 m<sup>2</sup>/4.5L (28 to 32 sq. ft./gal.)

**Colour:** Yellow

**Limitations:** Not designed to perform as a permanently exposed membrane.

### 4. TECHNICAL DATA

**Applicable Standards:** Meets and exceeds National Research Council (NRC) Type III Air Leakage requirements. Meets the requirements of ASTM E-96 Type I water vapour permeance. See Physical Properties Chart.

**Environmental Considerations:** Rub-R-Wall Airtight membrane is non-toxic, non-carcinogenic and will not contaminate ground water.

### 5. INSTALLATION

**Preparatory Work:** Refer to Examination section of specification for substrate requirements by others (new construction).

Under the work of the air/vapour barrier section of work, the following preparatory requirements include:

1. Removing loose or foreign matter which might impair adhesion of materials.
2. Filling any voids with a proprietary mastic substrate filler (Rub-R-Wall Airtight Mastic).
3. Cleaning and priming substrate joint/connection surfaces and applying Rub-R-Wall SA "transition strip".

**Methods:** Rub-R-Wall Airtight is applied using manufacturer approved applicators who undergo extensive training and are monitored for quality performance.

Applied over outer surface of inner

wythe of masonry or other substrate, Rub-R-Wall Airtight is sprayed on to surfaces using alternating horizontal and vertical passes to ensure complete coverage of substrate and Rub-R-Wall SA material. Masonry anchors or other penetrations are sealed air tight.

Transition joints are sealed using Rub-R-Wall SA over firm bearing at beams, columns, changes in substrate material and similar joints or connections including at window frame perimeter and door frames.



**Above:** Rub-R-Wall Airtight applied with pressure spray.



**Above:** Rub-R-Wall AVB applied over outer surface of inner wythe of masonry wall.

Typical Physical Properties\* (Imperial Measure. Metric chart available upon request).

PROPERTY	TEST METHOD	TEST RESULTS
Air Leakage Rate	ASTM E283	0.00220 L/s.m <sup>2</sup> (considerably lower than the 0.05 L/s.m <sup>2</sup> value for a type III air barrier as proposed by NRC (National Research Council.)
Elongation (%)	ASTM D412 (die C)	1800%
Low-Temperature Flexibility	Bend around 0.5 inch mandrel	Flexible to -20° F (-29° C)
Abrasion Resistance	700 psi on .06" x .06" point moving 1" per sec.	Less than 0.10% membrane loss
Asphalt Content	Non Applicable	0.0%
180° Peel Adhesion	Metal Plate	18 lbs./inch
Crack Bridging	ASTM 836	Exceeds ten cycles to 1/8 inch at -15° F (-26° C)
Water Vapour Permeance	ASTM E96 (water method)	5.32 ng/Pa.s.m <sup>2</sup> for 40-mil (1mm) dry coating grams/ft <sup>2</sup> /hr in Hg
Liquid Water Absorption	ASTM D95	Less than 0.5% (weight)
Resistance to Bacteria	ASTM D4299-83 (modified)	No attack
Resistance to Gust Wind Load	ASTM E330	Resists a suction pressure of 3,000 Pa (62.8 lbs./ft <sup>2</sup> ) maintained for 10 seconds with no delamination and no increase in air leakage rate when tested at 75 Pa (1.6 lbs./ft <sup>2</sup> )
Resistance to Sustained Wind Load	ASTM E283	Resists a suction pressure of 1,000 Pa (20.9 lbs./ft <sup>2</sup> ) maintained for 1 hour with no delamination and no increase in air leakage rate when tested at 75 Pa (1.6 lbs./ft <sup>2</sup> )
Resistance to Chemical Attack	Visual	Unaffected by chemicals in concentrations typically found in soils
Solvent Resistance	Visual	Exceeds performance of modified asphalts
Life Expectancy	ASTM D412 ASTM D2240	Exceeds 100 years
Density		0.9 kg/L

\* Tests conducted by the Ortech Corporation of Mississauga, Ontario and the Akron Rubber Development Laboratory Inc., Akron, Ohio. Copy of test reports available upon request.

### 5. INSTALLATION (Continued)

Generally strips are applied so that a minimum of 75 mm (3") coverage is achieved over both substrates, and with 25 mm (1") of full contact over window or door frames.

Rub-R-Wall Airtight is applied within the recommended application temperature range (may be applied successfully at temperatures as low as -15°C (5°F).

Airless spray equipment having a minimum pressure of 20 684 kPa (3000 psi) is used to apply Rub-R-Wall Airtight. The coverage rate of the completed membrane application is 2.6

to 3 m<sup>2</sup>/ 4.5 L (28 to 32 sq. ft./gal.) which provides a seamless, monolithic surface with a final thickness of 1 mm (40 mils). Typically, one crew can apply approximately 372 m<sup>2</sup> (4000 sq. ft.) of area per day. Drying time of Rub-R-Wall Airtight is approximately one hour, given average conditions and standard thickness.

A spray or board type cavity wall insulation is then adhered to the Rub-R-Wall air/vapour barrier membrane after an initial set time of approximately 1 to 2 hours, and while the membrane is still tacky, to prevent convection currents occurring behind the

insulation. Once applied, the insulation is firmly and permanently adhered into place and cannot be removed. Wedges or clips, normally used to secure the insulation may be reduced or eliminated.

**Building Codes:** Rub-R-Wall Airtight meets the intent of Part 5 (Section 5.3 Control of Air Leakage, Subsection 5.3.1 Air Barriers) of the National Building Code (NBC).

### 6. AVAILABILITY AND COST

**Availability:** Rub-R-Wall Airtight is available across Canada and throughout the U.S., usually shipped from stock. Contact Advanced Coatings Inc. for list of Dealers/Applicators.

**Cost:** Current price list available from Dealers / Applicators along with standard conditions of sale.

### 7. WARRANTY

The information herein is the best available relating to Rub-R-Wall Airtight, and the recommendations contained here-in are based on tests believed to be reliable. We warrant our products to be of merchantable quality and suitable for the purpose for which it is intended. We do not make any other warranty, express or implied, statutory or otherwise.

### 8. MAINTENANCE

Rub-R-Wall Airtight membrane does not require any maintenance. Damaged areas are easily repaired by spraying over affected areas. Cold joints or recoating is not a problem; newly applied material easily blends with existing Rub-R-Wall Airtight material to provide a monolithic membrane.

### 9. TECHNICAL SERVICES

For technical support call Advanced Coatings Inc. toll free.  
Head Office: (800) 787-8059  
Branch Office: (800) 730-0814

Specification assistance.  
Site advice and recommendations.

### 10. RELATED REFERENCES

Construction Specifications Canada (CSC) Tek-Aid 07195 Air Barriers (Digest, and Master Specification).

National Master Specification (NMS) Section 07196 Air Barriers (Descriptive / Proprietary).

"An Air Barrier for the Building Envelope, National Research Council Canada, Proceedings Building Science Insight '86."