

1. Product Name

WrapShield®

2. Manufacturer

VaproShield, LLC
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3. Product Description

BASIC USE

WrapShield is a breathable (moisture-permeable), water-shedding membrane that provides high-performance vapor control and a secondary weather barrier engineered for commercial applications.

COMPOSITION & MATERIALS

WrapShield is manufactured from 100% flash spun bonded, high-density polypropylene fabric. It is bonded by heat and pressure without binders or fillers into tough, durable sheets. WrapShield has a triple-layered construction to achieve the ideal combination of performance characteristics. WrapShield meets the following basic criteria: vapor permeable, water resistant, wind resistant, UV stabilized, rot proof, and tear resistant.

SIZES

WrapShield
• 59" x 164' - wall

4. Technical Data

APPLICABLE STANDARDS

American Association of Textile Chemists & Colorists (AATCC)
AATCC-127-Water Resistance:
Hydrostatic Pressure Test.
American Society for Testing & Materials (ASTM)

- ASTM E84-00a Standard Test Method for Surface Burning characteristics of Building Materials

- ASTM E96 for Water Vapor Transmission of Materials

ISO 5363:3 1992, Mean Air Permeance.

5. Installation

DELIVERY & SITE HANDLING

Rolls of WrapShield are delivered to site individually wrapped in a polythene sleeve.

Rolls should be stored on a clean, level surface – either flat or upright – and kept under cover.

WRAPSHIELD INSTALL METHODS

Always install WrapShield orange side out. For attachment to wood, insulated sheathing board or exterior gypsum board, fasten WrapShield using nails with plastic washers or stainless steel staples (minimum 1" crown). For steel frame construction, use screws with washers.

Step One

Begin at a corner of the building, leaving approximately 6" - 12" of WrapShield beyond the corner edge for later overlap. Hold roll vertically and unroll for a short distance. Make sure the roll is plumb and the bottom edge runs along the foundation line. Fasten the WrapShield to the corner edge of the building.

Step Two

Best practice: bottom edge of the WrapShield should always extend over the sill plate interface, especially when a sill sealer is not being used. Secure the WrapShield to the foundation with a polyurethane or latex-base joint sealer.

Step Three

Unroll a few feet of WrapShield at a time. Be careful to follow line of foundation. Fasten the WrapShield every 12" to 18" on the vertical studs.

Step Four

WrapShield should be cut to cover the interface of the upper and lower top plates. WrapShield on upper floors

should overlap the WrapShield on the lower floors by roughly 6".

Step Five

Refer to installation guide, utilizing simple rain screen construction for flashing window and door openings, when using WrapShield.

Step Six – Material Laps

Tape is utilized if laps are less than 6" horizontally and 12" vertically. Please refer to installation instructions.

PRECAUTIONS

WrapShield should be covered within nine months of installation. A complete installation guide is available.

Laying lightweight membranes in high wind conditions is difficult. Appropriate precautions should be taken during installation.

Attention to detail is important. Always look for and eliminate or mitigate blockages that could prevent the free drainage of water.

Contamination of WrapShield membrane with building site chemicals which make it more wettable (e.g., surfactants), adversely affects its water resistance and therefore its contribution to the water resistance of the overall wall system.

6. Availability & Cost

AVAILABILITY

WrapShield is widely distributed throughout the United States.

COST

Contact your nearest VaproShield representative for local cost and delivery information.

For more information or the name of your nearest representative, call:

1-866-731-7663, toll-free from the United States, from 8:00AM - 5:00PM, Pacific Standard Time.

WRAPSHIELD® APPROVALS and TESTING

ACCEPTANCE CRITERIA FOR WEATHER RESISTIVE BARRIERS AC 38 (POLYMERIC-BASED BARRIERS)

PROPERTY	STANDARD/TEST	RESULT
Tensile Strength	ASTM D882	MD – 44.8 lbf/inch (7.8 N/mm) CD – 25.1 lbf/inch PASS
Dry Breaking Force	ASTM D5034 (Grab Method)	MD – 118.5 lbf CD – 84.6 lbf PASS
Water Resistance (control and weathered specimens)	AATCC 127 (55cm hydrostatic head of water for 5 hrs)	No leakage noted on underside of control or weathered samples PASS
Water Resistance (Ponding)	ASTM D779	24hrs PASS
Water Vapor Transmission	ASTM E96* (Method B)	308.9 g/m ² 24hrs 2860 ng/Pa/s/m ² 50 Perms PASS
Low Temperature Bend	5 specimens bent over a 1/16 inch mandrel at 32°F	No cracking or delamination noted. PASS

AIR BARRIER TESTING

PROPERTY	STANDARD/TEST	RESULT
Air Permeance of Building Materials	ASTM 2178 (required to Massachusetts Energy Code and Air Barrier Association of America criteria)	0.0095 L/s/m ² 0.0019 cfm/ft ² PASS
Air Leakage through Wall Systems	ASTM E – 283	0.00017 L/s/m ² 0.000034 cfm/ft ² PASS
Air Retarder Materials & Systems	ASTM E – 1677	Type 1 Air Barrier PASS

FIRE TESTING

PROPERTY	STANDARD/TEST	RESULT
Flamespread Index	ASTM E-84	10 – Class A PASS
Smoke Development Index	ASTM E-84	35 – Class A PASS

WRAPSHIELD® APPROVALS and TESTING

INDEPENDENT TESTING

PROPERTY	STANDARD/TEST	RESULT
Nominal Thickness	Calibrated Deadweight Micrometer	0.023 inch (0.58mm)
Basis Weight	Electronic Weigh Scale	5.01 oz/yd ² (0.55 oz/ft ²) 170g/m ²
Drying Rate Analysis of Wet Plywood & OSB**	Water Loss (g) Over 100 hrs at 70°F, 50% RH	180 grams of water vapor lost through Wrapshield membrane (double nearest competitor)
Water Resistance (UBC Flashing Requirements)	ASTM 2112 (Appendix XI)	24hrs PASS

Tested in accordance with ICC-ES-AC 38 criteria to meet IBC and IRC requirements for Weather Resistive Barriers (ICC Certificate #ESR-1916).

***ASTM E 96 - Method B (wet cup method) typically gives a more realistic result for permeance of highly permeable products than does the Method A (dry cup/desiccant method).**

****Test report available from VaproShield LLC**

REFERENCES

AATCC - American Association of Textile Chemists & Colorists
 ASTM - American Society for Testing & Materials
 ICC-ES-AC - International Code Council, Evaluation Service Report