

# DUPONT™ TYVEK® COMMERCIALWRAP®

A DURABLE, HIGH PERFORMANCE WEATHER BARRIER ENGINEERED SPECIFICALLY FOR COMMERCIAL CONSTRUCTION



## DESCRIPTION

Engineered to provide excellent performance as an air and water barrier, Tyvek® CommercialWrap® delivers the added strength and durability needed in commercial construction. As a part of DuPont™ Tyvek® Commercial Air and Water Barrier Systems, Tyvek® CommercialWrap® can easily be integrated with other system components to provide superior air and water hold-out with high tear-resistance, high wind-load resistance and 9-month UV resistance. It provides the best balance of air and moisture management resulting in more durable and energy efficient structures.

Tyvek® CommercialWrap® is backed by a 10-year limited warranty and industry-leading technical support.

## TYPICAL PROPERTIES (APRIL, 2015)

Please contact your local DuPont™ Tyvek® Specialist before writing specifications around this product. Product properties are as follows.

## PRODUCT INFORMATION—FEATURES/BENEFITS

### Air and Water Barrier Performance

- Offers the ideal combination of air and water holdout plus vapor permeability.
- Air Barrier Association of America evaluated to exceed ABAA, ASHRAE 90.1 and IECC air leakage requirements when tested in accordance with ASTM E2357.

### Ease of Installation

- Easily installed, prior to the building's exterior facade, to help protect against air and water infiltration.

### High Performance Durability

- Offers high tear-resistance and high wind-load-resistance to help stand up to commercial construction site conditions.
- Withstands up to nine months of UV exposure.

### Sustainable Solutions

- DuPont™ Tyvek® CommercialWrap® may contribute toward LEED® points in the areas of Energy and Atmosphere (EA): Optimizing the Building Envelope and Indoor Environmental Air Quality (EQ): Construction IAQ Management Plan and Low Emitting Materials. In addition, the use of a continuous air barrier is a prerequisite for LEED® applications requiring compliance with ASHRAE 90.1-2010.
- By helping to effectively seal the building envelope, Tyvek® CommercialWrap® helps to reduce the amount of energy required for heating and cooling

### Complete System

Tyvek® CommercialWrap® can be integrated with DuPont self-adhered flashing products and Tyvek® Fluid Applied products to offer seamless protection for wall systems that require mechanically fastened and fluid applied air and water barriers.

Test Method	Property	Unit	Value
ASTM E2357	Air Penetration Resistance	cfm/ft <sup>2</sup> @ 1.57 psf	<0.01
Gurley Hill (TAPPI T-460)	Air Penetration Resistance	sec/100cc	>1500
ASTM E1677	Air Penetration Resistance	cfm/ft <sup>2</sup> @ 1.57 psf	Type 1
ASTM E2178	Air Penetration Resistance	cfm/ft <sup>2</sup> @ 1.57 psf	.001
ASTM E283	Wall Assembly Air Penetration Resistance	cfm/ft <sup>2</sup> @ 1.57 psf	<0.01
ASTM E96-00	Water Vapor Transmission	Method A g/m <sup>2</sup> -24 hrs	163
ASTM E96-00	Water Vapor Transmission	Method A (perms)	23
ASTM E96-00	Water Vapor Transmission	Method B g/m <sup>2</sup> -24 hrs	200
ASTM E96-00	Water Vapor Transmission	Method B (perms)	28
AATCC 127	Water Penetration Resistance	cm	280
ASTM E331	Wall Assembly Water Penetration Resistance	Tested to 15 psf	No leakage
TAPPI T-410	Basis Weight	oz/yd <sup>2</sup>	2.7
ASTM D882	Breaking Strength	lbs/in	38/35
ASTM D1117	Tear Resistance	lbs	12/10
ASTM E84	Surface Burning Characteristics	Flame Spread Index Class	10 Class A
ASTM E84	Surface Burning Characteristics	Smoke Developed Index Class	10 Class A
NFPA 285	Flame Propagation/Multiple Assemblies	—	Pass
	Ultra Violet Light Exposure (UV)	Days Months	270 9

Test results shown represent roll averages. Individual results may vary either above or below averages due to normal manufacturing variations, while continuing to meet product specifications



The miracles of science™

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## PRODUCT DESCRIPTION

Tyvek® CommercialWrap® is made from 100% flash spunbonded high density polyethylene fibers which have been bonded together by heat and pressure, without binders or fillers, into a tough durable sheet structure. Additives have been incorporated into the polyethylene to provide ultraviolet light resistance.

## INSTALLATION/USE INSTRUCTIONS

Please refer to DuPont Installation Guidelines for complete instructions.

## Safety Precautions for Use

Tyvek® CommercialWrap® is slippery and should not be used in any application where it will be walked on. In addition, DuPont recommends using kick jacks, scaffolding, or lifts for exterior work above the first floor. If ladders must be used, extra caution must be taken to use them safely by following the requirements set forth in ANSI Standards 14.1, 14.2, and 14.5 for ladders made of wood, aluminum, and fiberglass, respectively.

Tyvek® CommercialWrap® is combustible and should be protected from flames and other high heat sources. Tyvek® CommercialWrap® will melt at 275°F (135°C) and if the temperature of the product reaches 750°F (400°C), it will burn and the fire may spread and fall away from the point of ignition. For more information, call 1-800-44-Tyvek.

## Preparation

No surface preparation is needed for the installation of Tyvek® CommercialWrap®.

## TESTING/CODE COMPLIANCE

### Moisture Protection – Weather-Resistant Barriers

The 2012 International Building Code (IBC, Section 1403.2 Weather Protection) requires that exterior walls shall provide the building with a weather-resistant *exterior wall envelope*. This shall include flashing, as described in Section 1405.4. Tyvek® CommercialWrap® and where applicable, DuPont self-adhered flashing and accessory products, have been tested and meet weather-resistant barrier codes and standards requirements. The following test methodologies were used:

- ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Pressure
- ASTM E2556 Standard Specification for Vapor Permeable Flexible Sheet Water-resistive Barriers intended for mechanical attachment
- ASTM E96-00 Standard Test Methods for Water Vapor Transmission of Materials; Water resistive barriers are typically vapor permeable, which is generally desirable because it allows for drying of incidental moisture intrusion into the wall assembly
- AATCC 127 Hydrostatic Head Test for water-resistant barrier materials, measuring pressure to failure or time of failure at a given pressure

### Air Leakage Control — Air Barriers

ASHRAE 90.1 2010 (American Society of Heating, Refrigerating and Air-Conditioning Engineers) requires that the entire building envelope shall be designed and constructed with a *continuous air barrier*. This is a mandatory provision for the building envelope. IECC 2012 (International Energy Conservation Code) for commercial buildings also requires a *continuous air barrier*. These codes are being adopted in many states across the United States. Tyvek® CommercialWrap and where applicable, DuPont self-adhered flashing and accessory products have been tested and meet air barrier codes and standards requirements. The following test methodologies were used:

- ASTM E2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- ASTM E1677 Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls
- ASTM E2178 Standard Test Method for Air Permeance of Building Materials
- ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen

## Other

- ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
- NFPA 285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

Tyvek® CommercialWrap®, in conjunction with DuPont self-adhered flashing and accessory products, have been evaluated according to Air Barrier Association of America (ABAA) protocol and are listed at the ABAA website under “ABAA evaluated Air Barrier Assemblies”, [www.airbarrier.org](http://www.airbarrier.org)

## NOTICE

Tyvek® CommercialWrap® should be covered with the facade within nine months to limit UV exposure. Follow facade manufacturer’s installation and maintenance requirements in order to maintain water holdout.

## MATERIAL STORAGE/DISPOSAL

Tyvek® CommercialWrap® should be stored in a clean, dry environment.

## PACKAGING

Tyvek® CommercialWrap® is available the following roll sizes:

- 5' x 200' (1.5 x 61m)
- 10' x 125' (3.1 x 38.1 m)

## WARRANTY

Backed by a limited product warranty, see [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com).

