



DEFINING

# THE DIFFERENCE

WITH DUPONT™ TYVEK®

Discover the DuPont™ Tyvek®  
**Miracles of Science**  
through Building Innovation

DuPont™  
**Tyvek®**

 *The miracles of science™*

DuPont™ Tyvek®  
HomeWrap®

DuPont™  
**Tyvek®**  
HomeWrap®  
DU PONT™ The miracles of science

DuPont™  
StraightFlash™



DuPont™  
FlexWrap™



DuPont™  
Tyvek® Tape



DuPont™ Tyvek®  
WrapCaps®



# Defining the DuPont™ Tyvek® *Miracles of Science*



DuPont invented Tyvek®, *a miracle of science*, used in a wide variety of industries including protective apparel, envelopes, medical packaging, graphics and construction. DuPont continues to invent new products and new techniques, building upon our existing miracles of science.

There's no doubt about it. Tyvek® is a product that easily demonstrates how much you care about your customer's comfort, now and for all the years they'll own their home; it's simply basic to better building. Wrapping a home in a "protective envelope" is a good building practice that helps combat a home's worst enemies: water, moisture and air infiltration.

## **PROUDLY PRESENTING THE MIRACLES OF DUPONT™ TYVEK®**

**DUPONT™ TYVEK® HOMEWRAP®**, our premier brand, is used in residential construction under all cladding types. It protects your house like a windbreaker, stopping the wind and rain from getting in – forming a protective skin around the house. And since it also breathes, moisture inside the house can get out, which helps prevent costly water damage. Tyvek® HomeWrap® helps keep insulation dry so it will perform more efficiently, keeping you and your family more comfortable.

**DUPONT™ TYVEK® STUCCOWRAP®** has a specially engineered textured surface.

- ▶ **Traditional Stucco:** Using Tyvek® StuccoWrap® can result in stronger stucco, more resistant to cracking. Less cracking means better stucco integrity. There's less chance that water will penetrate the facade. StuccoWrap® does not absorb water and helps to maintain the moisture level needed for better curing. In a two layer weather resistive barrier system, Tyvek® StuccoWrap® provides an excellent drainage plane when used as the bottom layer, thus promoting drainage between the layers.
- ▶ **Synthetic Stucco or EIFS:** Tyvek® StuccoWrap® has grooves designed into the product as a drainage path for water or moisture vapor to escape. It increases the walls water managing capacity by safely channeling moisture towards the exterior.

**DUPONT™ TYVEK® COMMERCIALWRAP®** is a heavier grade of membrane for tougher commercial construction needs with excellent on-site durability, and nine month UV protection. It provides improved water holdout, and resists air infiltration better than building paper and #15 felt. It is designed to withstand the more rigorous construction site conditions of light commercial construction.

## **DUPONT™ FLASHING SYSTEMS**

- ▶ **DuPont™ FlexWrap™** is a moldable flashing tape that is uniquely engineered to address the issues of flashing the vulnerable bottom corners at the window sill where damage is most likely to occur. FlexWrap™ is wrapped into the sill rough opening before the window is installed, making one-step, seamless protection possible. Is uniquely suited for seamless protection of round-top and odd shaped windows.
- ▶ **DuPont™ StraightFlash™** is meant to be used with DuPont™ FlexWrap™. This product is designed to flash straight heads and jambs of rectangular windows. Both of these products help to provide you with superior water intrusion protection.

**DUPONT™ TYVEK® TAPE:** Taping the seams after wrapping is suggested for optimum reduction of air and water intrusion. Taping completes the envelope around your home with a seamless protective barrier. DuPont™ Tyvek® Tape features a specially-engineered adhesive to create the best Tyvek® to Tyvek® adhesion.

## **DUPONT™ TYVEK® WRAP CAPS:**

- ▶ **DuPont™ Tyvek® Wrap Cap Nails and DuPont™ Tyvek® Wrap Cap Staples** – Residential: The 1 inch diameter, high density polyethylene cap is engineered to distribute the optimum holding power to the perimeter of the cap, reducing jobsite blow offs, and the patented triple-feather seal provides an effective barrier to air infiltration.
- ▶ **DuPont™ Tyvek® Wrap Cap Screws** – Commercial: DuPont™ Tyvek® Wrap Cap Screws are the solution for quality commercial and steel stud installations. It is an easy way to secure Tyvek® products to steel studs and increase holding power. The large plastic cap provides additional protection around fastener penetrations and permits easy handling and installation.

# Support and Innovation make the difference: *Another Miracle...the DuPont™ Tyvek® Specialist Network*

The DuPont™ Tyvek® Specialist Network is unique to the industry. They are available to help answer your questions and help bring more value to your customers. Each of the specialists are trained to become Certified Specialists, which includes 2 years of rigorous training in building practices, air/moisture management, and product knowledge. Backed by the resources of DuPont, more than **140 specialists** form a North American network to help answer your building science questions including: designing/constructing a forgiving wall system; specifying and installation; and training of installation crews.

- ▶ **Receive** the latest installation tips and industry practices
- ▶ **Learn** more about our best practice methods for window and door flashing
- ▶ **Provide** on-site training for installation crews, field installers and builder sales staff
- ▶ **Update** architects and specifiers on usage and specification of products as well as relevant information on code issues and changes
- ▶ **Help** create educational model home displays
- ▶ **Partner** with you to promote your brand name with ours
- ▶ **And much more...** call on your local specialist. It's like having an extra player on your team!

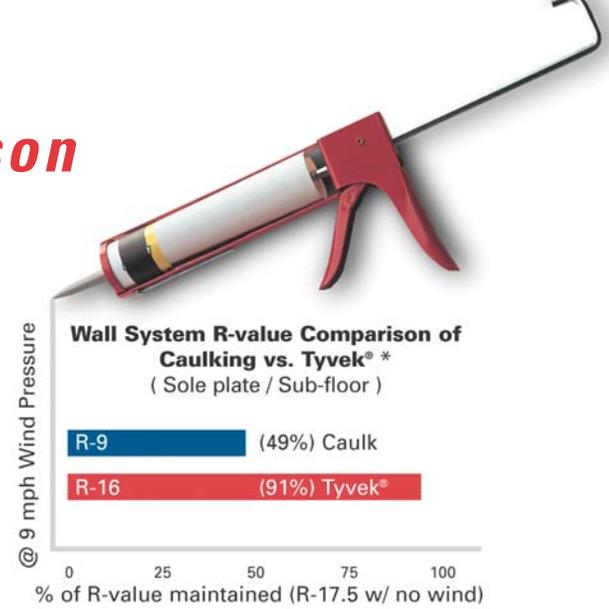
Visit our website to locate the specialist nearest you. **[www.tyvek.com](http://www.tyvek.com)** or call **1-800-44-TYVEK**.



# There's Just *No Comparison*



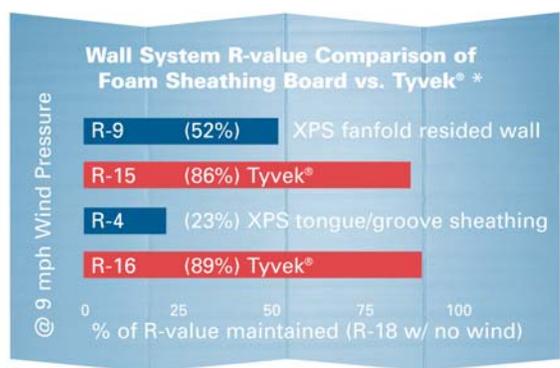
**TYVEK® lets moisture escape.**



**TYVEK® stops air better than taping and caulking.**



**TYVEK® has the best water holdout.**



**TYVEK® stops air better than foam sheathing.**

\* Based on wall testing measuring heat transfer under simulated wind conditions, compared to walls with no wind at rated R-values.

BALANCE OF PERFORMANCE					
	Tyvek® HomeWrap®	Perforated Wraps	Low Perm Microporous Film Wraps	Grade D Building Paper	#15 Felt
<b>Air Penetration Resistance</b> air-ins test [cfm/ft² @ 75 PA]	<b>HIGHEST</b> air penetration protection [.007]	Mechanical pinholes allow air penetration [.1–.9]	Film abrasion can cause holes that reduce protection	Minimal air penetration resistance, not designed as an air barrier	Minimal air penetration resistance, not designed as an air barrier
<b>Bulk Water Holdout</b> (AATCC-127) hydrostatic head [cm]	<b>HIGHEST</b> water holdout [210]	Mechanical holes allow water penetration [10–25]	Reduced water holdout [165–180]	Absorbs water	Absorbs water [52]
<b>Moisture Vapor Permeance</b> (ASTM E96) vapor transmission [perms]	<b>HIGH</b> breathability, lets moisture escape [58]	Holes allow moisture to get out [6–18]	Low vapor permeability [6.7–13.7]	10x less permeable than Tyvek® [5]	7x less permeable than Tyvek® [8]
<b>Durability</b>	<b>EXCELLENT</b> tear strength, good wet strength	Stretching, fatigue & aging may reduce performance	Film susceptible to abrasion during installation	Tears and punctures easily, loss of strength when wet	2x less tear strength than Tyvek®

# DuPont™ Tyvek® Helping to Build More "Forgiving" Walls.

Air infiltration can result in 63% loss of R-value **WITHOUT Tyvek®.**

When air passes through, effective R-value falls to **R-5**

R-Value starts at **R-13**

A typical 2000 square-foot home has more than 1/2 mile of cracks and crevices allowing air and water penetration.

The DuPont Flashing System is designed to help direct water to the building exterior instead of trapping it inside the wall systems and causing water damage. A window will not perform to a builder's or homeowner's expectations if it is not properly flashed and leaks occur.

**S**tart with the assumption that water and moisture always will penetrate walls. Whether from inside sources or from outside weather conditions, water and moisture inevitably find ways to get inside walls.

A "forgiving" wall is one that is able to manage water and moisture, increasing the capacity of a wall to dry out before damage can occur.

## POSSIBLE AIR LEAKAGE:

1. Electrical, plumbing penetrations through top and bottom wall plates, both inside and outside.
2. Gaps between sheathing.
3. Interior partition walls that connect to floor or attic.
4. Joints between sole plate and subfloor along exterior walls.
5. Gaps in drywall and top and bottom wall plates.
6. Uninsulated walls near unheated spaces like the garage or crawl spaces.
7. Wherever two framing members meet, forming a crack.
8. Around windows and doors

## POSSIBLE WATER LEAKAGE:

1. Poorly fitted and flashed doors and windows.
2. Inadequate overhangs.
3. Wind-driven rain forced through any crack or crevice by higher outside pressure to lower inside pressure.
4. Plumbing or electrical protrusions not properly sealed.

## INTERIOR MOISTURE SOURCES:

1. Showers and baths
2. Dishwashers
3. Improperly vented exhaust fans
4. Green or wet framing lumber
5. Cooking
6. Plants

Resists water penetration

DuPont™  
**TYVEK**  
The miracles of science

Resists air penetration

Allows moisture vapor to pass through

# Engineering Tyvek® for *Today's Construction*

## COMPARATIVE PRODUCT PROPERTIES

Properties	Method	Tyvek® HomeWrap®	Tyvek® StuccoWrap®	Tyvek® CommercialWrap®	Building Paper	#15 Felt
<b>Air Penetration</b>	Air-Ins (cfm/ft <sup>2</sup> @75 Pa)	.007	.004	.001	—	—
	Gurley Hill (TAPPI T-460) (sec/100cc)	300	300	>1500	—	—
	ASTM E-1677	Type 1	Type 1	Type 1	—	—
<b>Water Vapor Transmission</b>	ASTM E-96 Method A (g/m <sup>2</sup> -24 hrs) (perms)	325 48	250 36	160 23	35 5	54 8
	ASTM E-96 Method B (g/m <sup>2</sup> -24 hrs) (perms)	400 58	350 50	200 28	— —	— —
<b>Water Penetration Resistance</b>	AATCC-127 (cm)	210	210	280	90–120	52
<b>Basis Weight</b>	TAPPI T-41D (oz/yd <sup>2</sup> )	1.8	2.1	2.7	—	—
<b>Breaking Strength</b>	ASTM D-882 Method A (lbs/in)	30/30	30/30	38/35	>20/>20	33/11
<b>Tear Resistance (trapezoid)</b>	ASTM D-1117 (lbs)	6/6	7/9	12/10	2 to 3	3 to 4
<b>Surface Burning Characteristics</b>	ASTM E-84-97a Flame Spread	5 Class A	5 Class A	10 Class A	—	—
	Index Smoke	20	25	10	—	—
	Developed Value	Class A	Class A	Class A	—	—
<b>Ultra Violet Light Exposure (UV)</b>		120 days (4 months)	120 days (4 months)	270 days (9 months)	—	—
<b>Thickness mils</b>		6.4	5.5 layer 18 channel*	7.1	—	—

\*Installed depth will vary depending on application.



## ROLL SIZES

### DuPont™ Tyvek® HomeWrap®

10' x 150'	3.1 x 45.8 m
10' x 100'	3.1 x 45.8 m
9' 6" x 150' *	2.9 x 45.8 m *
9' 6" x 100' *	2.9 x 30.5 m *
9' x 150'	2.7 x 48.8 m
9' x 100'	2.7 x 30.5 m
5' x 200'	1.5 x 61 m
3' x 165'	0.9 x 50.3 m
3' x 100'	0.9 x 30.5 m
18" x 100'	0.5 x 30.5 m

\*Canadian roll sizes only.

### DuPont™ Tyvek® StuccoWrap®

5' x 200'	1.5 x 61 m
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### DuPont™ Tyvek® CommercialWrap®

5' x 200'	1.5 x 61 m
10' x 125'	3.1 x 38.1 m

### DuPont™ Tyvek® Tape

2" x 164'
3" x 164'

### DuPont™ Flashing Systems

<b>FlexWrap™</b>
7" x 75'
9" x 75'
<b>StraightFlash™</b>
4" x 150'



# Building Better... *Builds Your Reputation, Boosts Referrals, Lowers Callbacks.*

Tyvek® is a product that easily demonstrates how much you care about your **customer's comfort**, now and for all the years they'll own their home:

▶ **Add a "Comfort Factor" to your homes consumers can relate to.**

- Tyvek® **helps reduce drafts** and cold areas in winter.
- Keeps hot, humid air out in the summer.

▶ **Sell the leading brand name backed by a trusted Fortune 500 company.**

- Describe DuPont™ Tyvek® as a **high tech envelope** that helps protect a home from the weather.

▶ **Curb Appeal**

- Makes your building site look cleaner, **more appealing**.
- Makes your homes appear larger, more attractive during construction.

▶ **Make energy efficiency another benefit you can sell.**

- Use the **DuPont Energy Analysis** to show expected cost savings/payback time.
- Show how air infiltration reduces installed R-value, no matter how thick the insulation.
- Homeowners may qualify for energy-efficient mortgages.

▶ **Make long-term protection against water & moisture damage a key feature.**

- Demonstrate how **water rolls right off Tyvek®**.
- Explain how Tyvek® helps allow potentially damaging inside moisture escape safely to the outside, helping prevent mold, mildew, rot or structural damage.

#### TECHNICAL SPECIFICATIONS:

Tyvek® used in construction products 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. DuPont suggests that Tyvek® HomeWrap® and StuccoWrap® be covered within four months of installation and CommercialWrap® within nine months of installation.

#### PRODUCT GUARANTEE:

DuPont will replace any Tyvek® family of products damaged during installation by weather or normal handling if it is installed according to procedures published by DuPont. If you have any questions, call DuPont™ Tyvek® Weatherization Systems at 1-800-44-TYVEK.

If DuPont™ FlexWrap™ and StraightFlash™ product fails to meet published material specifications at the time of shipment, or contains defects created during its production, DuPont will replace defective material at no charge.

Meets the ASTM E1677 Type 1 Air Retarder when installed according to Tyvek® best practices. See installation instructions on label.

ICBO ES-4000, BOCA ES-98-46, SBCCI PST&ES-95105D

#### FOR MORE INFORMATION:

**1-800-44-TYVEK**

Fax: 800-203-0013

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DuPont™  
**Tyvek®**



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**SOLD!**