

## **Wraps You in Comfort**

### How DuPont<sup>™</sup> Tyvek<sup>®</sup> works:

For over 25 years, DuPont<sup>™</sup> Tyvek<sup>®</sup> HomeWrap<sup>®</sup> has helped make over 5 million homes more energy efficient and more comfortable. Tyvek<sup>®</sup> helps reduce the movement of air into your home and helps keep wind driven rain out of your walls. And because Tyvek<sup>®</sup> HomeWrap<sup>®</sup> breathes, if moisture does get inside your walls, Tyvek<sup>®</sup> lets it dry through to the outside. Helping to keep air and water out; letting moisture vapor pass through–it's the perfect way to keep you comfortable year round.

#### **How insulation works:**

Trapped air is an excellent insulator–as long as the air is NOT MOVING. Good examples of trapped air acting as an insulator, keeping what's inside warm or cold, are the double pane windows in your home or the two container construction of a Thermos<sup>®</sup> bottle.

Wall insulation works the same way. As long as the air inside the insulation stays still and dry, the insulation works to its rated R-value. The result is a comfortable home.

But, an average 2,500 square foot home has more than a 1/2-mile of cracks and crevices in the wall cavity, and if the wind blows even a little (and it blows, on average, 8 mph across the US), air is forced into your home. Your heater or air conditioner will run more often to keep you comfortable, resulting in higher energy bills.



How can you prevent air and moisture from getting inside your home?

Use the Tyvek<sup>®</sup> Weatherization System underneath your siding, stucco or brick.



### How Tyvek<sup>®</sup> and Insulation Work Together:

The wall has an installed R-value of R-23. (Installed R-value includes the whole wall system, with studs, sheathing board, insulation and siding, and takes wind movement into account.) Test have shown that, when outside air moves into the wall through any tiny crack or crevice resulting from normal construction practices, the insulation can lose up to 63% of its installed R-value. Tyvek<sup>®</sup> HomeWrap<sup>®</sup> stops extra air from flowing into a wall.

Controlling the air coming into your walls is more important than adding more insulation to give you the performance and comfort you expect. Be sure to get the best insulating effectiveness and energy efficiency in your home.

# Why is Tyvek Superior to Zip System:

There are many reasons but one of the most important is permeability, Third-party laboratory testing of the vapor permeability of ZIP System<sup>®</sup> wall sheathing shows that it has vapor permeability less than 1 perm, under both wet and dry cup measurement conditions. Because ZIP System<sup>®</sup> wall sheathing requires all seams to be sealed with tape, installed ZIP System<sup>®</sup> wall sheathing constitutes an exterior, non-insulated vapor barrier. As such, it can be subject to condensation during cold weather. An exterior vapor barrier significantly reduces drying capability of the wall system if moisture enters through any mechanism.

In contrast, current DuPont<sup>™</sup> Tyvek<sup>®</sup> WRBs have permeability ratings ranging from 20 to 60 perms. This high permeability allows the wall system to maintain a higher drying capability than wall systems utilizing ZIP System<sup>®</sup> wall sheathing. Allowing your home to breathe while keeping it dry and comfortable. INSTALLED R-VALUE AT 9 MPH WIND PRESSURE WITH AND WITHOUT TYVEK  $^{\otimes}$ 



As shown in the chart, a home wrapped in DuPont<sup>™</sup> Tyvek<sup>®</sup> HomeWrap<sup>®</sup> will maintain 94% of its installed R-value, compared to only 37% for a home without Tyvek<sup>®</sup>.

Tyvek<sup>®</sup> HomeWrap<sup>®</sup> from DuPont is a choice you can comfortably live with for years to come.

# For more information please call 1-800-44-TYVEK

www.tyvek.com



The miracles of science™

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