

# DuPont™ Tyvek® Weatherization System

## CASE HISTORY

DuPont™ Tyvek® ThermaWrap™  
MJC Companies – White Lake Township, MI



DuPont partnered with MJC Companies, the largest residential builder in Michigan, for the first ever installation of DuPont™ Tyvek® ThermaWrap™ in North America. MJC Companies chose Tyvek® ThermaWrap™ because it is the first insulating breathable membrane designed with a unique combination of thermal resistance and high vapor permeability that helps increase the R-value of a wall system by reducing radiant heat flow. The builder's model home was outfitted with Tyvek® ThermaWrap™ to minimize summer heat gain and winter heat loss in the seasonal Michigan weather, which proved to be a perfect climate for DuPont™ Tyvek® ThermaWrap™. The model home was fully instrumented with latest-technology sensors that provided on-line monitoring of temperature, relative humidity and moisture content of the entire wall system. After a full summer and winter season, the test results from the field confirmed the significant increase in R-value, the substantial energy savings in heating and cooling cost and the ability of Tyvek® ThermaWrap™ to reduce thermal bridging at the studs, which in turn helped to keep both the insulation and the wood structure dry at all times, minimizing the risk of condensation, mold and rot.

### Issues

- Building homes that control condensation, help prevent mold and provide higher weather resistance.
- Managing the radiant heat flow across the entire wall system and providing thermal insulation for the home.
- Selecting building materials that increase the R-value of a wall system.



*The miracles of science™*

## Challenges

- Increasing the R-value of the wall assembly, reducing heat loss in the winter and heat gain in the summer to conserve energy.
- Protecting the structural timber from outside weather conditions and harmful internal condensation.
- Keeping the home's insulation dry at all times, protecting its R-value helping reduce the risk of mold growth and wood rot.

## Solutions

- DuPont™ Tyvek® ThermaWrap™ adds R-2 insulation value to a wall, when installed with an air space, and allows up to a 15 percent reduction in heat flow through walls, helping reduce energy costs.
- DuPont™ Tyvek® ThermaWrap™ is a breathable material that resists air and water penetration while still allowing moisture vapor to pass through.
- Unlike foil building wraps, DuPont™ Tyvek® ThermaWrap™ regulates the vapor drive through walls and allows the timber to breath, helping reduce the risk of mold and mildew growth.

## Benefits

- Homes equipped with DuPont™ Tyvek® ThermaWrap™ benefit from a high-perm membrane and increased thermal insulation, which reflects heat away from wall surfaces, yet retains vapor permeability for the life of the building.
- DuPont™ Tyvek® ThermaWrap™ provides additional R-value at the studs, minimizing thermal bridging and preventing mold and rot.
- DuPont™ Tyvek® ThermaWrap™ is designed to help control condensation and provides a higher air and water resistance than conventional building paper.
- DuPont™ Tyvek® ThermaWrap™ is a flexible, lightweight and durable building material, which allows for easy installation by framing crews with on-site help from a DuPont™ Tyvek® Specialist.

## Our Specialist Network

A national group of over 160 highly-trained field representatives is available to assist you with your installations. From the latest updates on building codes, to on-site consulting and training, your local DuPont™ Tyvek® Specialist will help make sure the job gets done right.

**“DuPont partnered with MJC Companies for the first ever installation of DuPont™ Tyvek® ThermaWrap™ in North America.”**



Copyright © 2006 E. I. du Pont de Nemours and Company. All rights reserved. The DuPont Oval Logo, DuPont™, The miracles of science™, Tyvek®, and Tyvek® ThermaWrap™ are registered trademarks or trademarks of DuPont or its affiliates. All other trademarks are the property of their respective owners. Rev.06/06 K-16254

For more information about DuPont™ Tyvek® Weatherization System products please call 1-800-44-TYVEK or visit us on the web at [www.Construction.Tyvek.com](http://www.Construction.Tyvek.com)



*The miracles of science™*