

DuPont™ Tyvek® DrainWrap™

BUILDING SCIENCE BULLETIN

DuPont™ Tyvek® DrainWrap™ is an innovative weather resistive barrier engineered with vertical grooves on the surface. When combined with flashing and weeps, DuPont™ Tyvek® DrainWrap™ can promote outstanding bulk water drainage in wall systems by helping channel moisture safely to the outside.



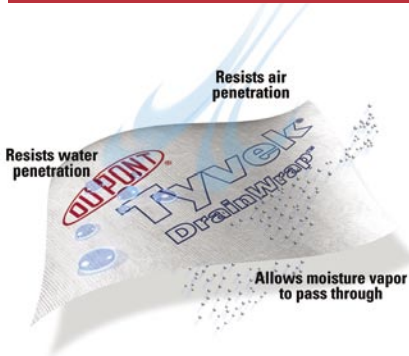
DuPont™ Tyvek® DrainWrap™ offers the unique properties of Tyvek® combined with an additional drainage system into a single product.

Utilizing the technology developed for DuPont™ Tyvek® StuccoWrap®, DuPont™ Tyvek® DrainWrap™ has been engineered to enhance the moisture management capability of wall systems by adding a drainage component to the traditional attributes of a weather resistive barrier. This drainage attribute can help enhance the performance of a wall system by limiting the potential for wetting of components, in particular during heavy inclement conditions or in areas with substantial exposure to wind driven rain. DuPont™ Tyvek® DrainWrap™ will help enhance drainage behind claddings such as:

- primed wood
- fiber cement siding
- where foam board is applied over flat substrates

The unique, nonwoven-fiber structure of DuPont™ Tyvek® DrainWrap™ is designed to manage water and moisture effectively. It helps resist air infiltration and water intrusion, yet is engineered to readily allow moisture vapor to diffuse through the sheet, helping prevent mold and mildew buildup and wood rot.

The drainage component of DuPont™ Tyvek® DrainWrap™ helps keep out bulk moisture and air, helps protect insulation, and helps prevent the formation of unhealthy mold and mildew.



A good weather resistive barrier has 4 equally important functions:

1. **High level of air resistance** - to help prevent drafts, help reduce energy bills and resist the flow of moisture laden air through wall cavities.
2. **High level of water resistance** - to help protect the wall cavity from water that gets behind the cladding.
3. **Moderate to high vapor permeability** - to promote drying in wall systems.
4. **Durable** - to withstand the rigors of the construction site and continue to perform once construction is completed.

In addition to offering these important functions, DuPont™ Tyvek® DrainWrap™:

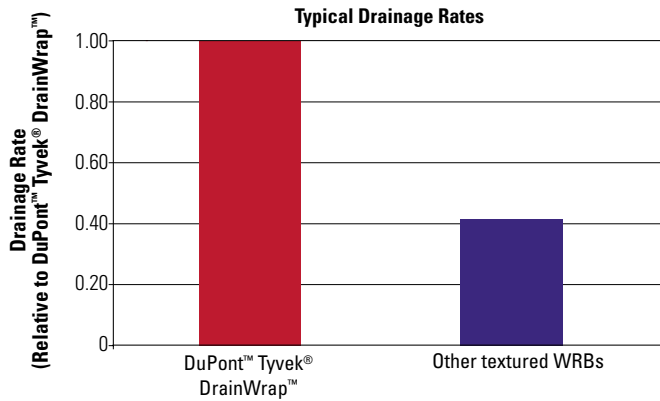
- Improves drainage
- Is durable and maintains a constant drainage rate even after repeated wetting and drying cycles
- Offers excellent protection against water intrusion
- Helps reduce air infiltration to increase comfort
- Helps protect installed R-value of insulation



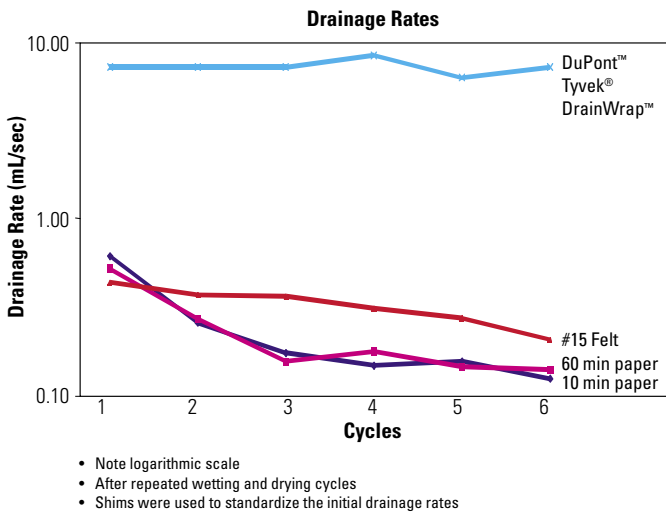
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Benefits of using DuPont™ Tyvek® DrainWrap™

DuPont™ Tyvek® DrainWrap™ improves drainage over other textured resistive barriers. To demonstrate typical drainage rates relative to DuPont™ Tyvek® DrainWrap™, bulk water was applied between a flat acrylic panel and the weather resistive barrier. The results are shown in the figure below.



Grade D building paper wrinkles as it absorbs water and experiences wetting and drying cycles which can create dams that hinder water drainage. This effect is illustrated in the figure below, which shows a constant drainage rate for DuPont™ Tyvek® DrainWrap™ compared to a decreasing drainage rate for building paper after numerous cycles. The test was performed by introducing bulk water between a flat acrylic panel and the weather resistive barrier and measuring the drainage rate after numerous wetting and drying cycles.



Installation Is Easier

DuPont™ Tyvek® DrainWrap™ is easy to install. It is pliable, so it wraps around corners with ease. Light weight, easier to handle and faster to install. In addition, because it's flexible, DuPont™ Tyvek® DrainWrap™ easily interfaces at joints and over architectural elements. DuPont™ Tyvek® DrainWrap™ is available in 9 and 10 foot width rolls for use behind a variety of claddings. This wide roll minimizes seams and offers the potential for reduction in labor costs compared to narrower rolls.

Superior Product Innovation

Through its 30 years of research and development measuring wall system dynamics and the attributes of secondary weather barrier systems, DuPont™ Tyvek® DrainWrap™ is the latest product extension in the DuPont™ Tyvek® weatherization line. In 1998, DuPont led the industry with the introduction of DuPont™ Tyvek® StuccoWrap®, the first weather resistive barrier with drainage, approved for use behind EIFS applications. Expanding on this technology, DuPont™ Tyvek® DrainWrap™ is specifically designed to provide superior water drainage, combat moisture and help prevent air infiltration, creating a more comfortable, energy-efficient home or building. It does not support the growth of mold and mildew and helps keep heating and cooling costs down by controlling air infiltration. For questions regarding DuPont™ Tyvek® DrainWrap™, customers can turn to the DuPont™ Tyvek® Specialist Network, a national group of over 160 highly-trained field representatives.

For more information: 1-800-44-TYVEK
www.tyvek.com

Product Guarantee: DuPont will replace any Tyvek® product 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® at 1-800-44-TYVEK.

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