

DuPont™ Tyvek® Weatherization Systems

CASE STUDY

DuPont™ Tyvek® CommercialWrap®
Children's Hospital of Pittsburgh of UPMC



The nine-story hospital building features a mix of cladding materials, creating an eye-catching facade



Acid-etched copper panels are installed over DuPont™ Tyvek® CommercialWrap® on the 10-story research facility building.

Children's Hospital of Pittsburgh of UPMC is renowned for setting standards of excellence and is focused on innovation, breakthrough technology and sustainability. During a recent \$575 million expansion and renovation project, the hospital wanted to become one of the country's first "green" pediatric facilities and turned to DuPont™ Tyvek® Weatherization Systems for a sustainable weather barrier solution.

With sustainability and U.S. Green Building Council (USGBC) standards and practices as core project objectives, choosing a durable weather barrier that helps improve air control for greater energy savings, provides superior water hold-out, and allows moisture vapor to escape was critical for success. The project's architectural firm, Astorino, recommended using DuPont™ Tyvek® CommercialWrap®. Ultimately, more than 500,000 square feet would be used on this project.

Local DuPont™ Tyvek® Specialist, Mike Szwedko of Bennett Supply, served as a technical expert to Astorino during the design phase and provided ongoing technical support to the three contractors – Barton Malow, Hunt Construction Group and P.J. Dick Incorporated – and the various installers who were involved in the many construction phases of this high-profile project.

Challenges

Located high on a hill, the hospital complex is susceptible to high winds and weather extremes. The weather barrier chosen had to be durable enough to withstand high wind loads during construction and be able to deliver the right balance of properties after completion.

Obtaining Leadership in Energy and Environmental Design (LEED®) credits was a key objective. The weather barrier chosen needed to contribute to the overall sustainability of the project.

Several different commercial facades were being used. The architectural team needed a weather barrier that was compatible under a wide variety of cladding materials.



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Solutions

- High winds during installation are no problem for DuPont™ Tyvek® CommercialWrap®, which passes ASTM 2357 for high wind loads.
- DuPont™ Tyvek® CommercialWrap® is a vapor permeable membrane that helps seal the building envelope and provides superior air and bulk water hold-out while allowing moisture vapor to escape.
- By helping seal the building envelope for improved energy efficiency and air quality, DuPont™ Tyvek® CommercialWrap® helps contribute toward USGBC LEED® credits.
- DuPont™ Tyvek® CommercialWrap® is designed to integrate seamlessly under a wide variety of commercial facades, including: copper panel, brick, stone, steel panel, stucco, marble, granite and EIFS (synthetic stucco).

An important benefit of using DuPont™ Tyvek® CommercialWrap® is that it is part of the complete line of DuPont™ Tyvek® Weatherization Systems. On this project, DuPont™ Tyvek® Wrap Caps and DuPont™ Tyvek® Tape were used during the installation of DuPont™ Tyvek® CommercialWrap®, while DuPont™ FlexWrap™ was used for flashing window sills.

Our Specialist Network

The DuPont™ Tyvek® Specialist Network is a national team of more than 180 highly-trained field representatives, including 30 who are focused specifically on commercial building applications. You can count on your DuPont™ Tyvek® Specialist Network to provide unparalleled field support, locate a dealer in your area and help ensure proper installation of DuPont™ Tyvek® Weatherization Systems.

For more information, please call
1-800-44-Tyvek or visit
www.Construction.Tyvek.com



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Because of the type of scaffolding used, installers hung DuPont™ Tyvek® CommercialWrap® vertically. DuPont Technical Specialists approved this unique installation, stating that it would not affect the product's performance provided that it was properly shingled and taped.