

## Vanquishing vapor: The importance of effective vapor management in construction

### Hello Reader,

What is vapor, exactly, and how can it negatively affect your construction projects? I'm glad you asked, because helping customers understand and contend with vapor-related issues in their builds is a primary focus here at Dörken.

In short, vapor is the gaseous state of a substance that is typically found as a liquid or solid at room temperature. It forms when a liquid or solid evaporates, meaning that molecules at the surface gain enough energy to escape into the air.

When left unchecked, vapor—particularly water vapor—can lead to moisture accumulation in buildings, prompting mold growth, structural damage, and insulation degradation. This unchecked moisture can also weaken materials such as wood and drywall, cause corrosion on metal surfaces, and reduce insulation effectiveness, leading to higher energy costs. Additionally, high indoor humidity from vapor can degrade air quality, creating an uncomfortable and unhealthy environment for occupants.

That's why vapor management through proper ventilation, barriers, and moisture control is essential to preserving the integrity, comfort, and safety of commercial and residential buildings. In this month's newsletter, we'll take a closer look at some of the Dörken products, case studies, and resources that can help you plan for effective vapor mitigation.

Looking for guidance or support on an upcoming build? [Reach out any time](#). We can't wait to hear about your next venture.



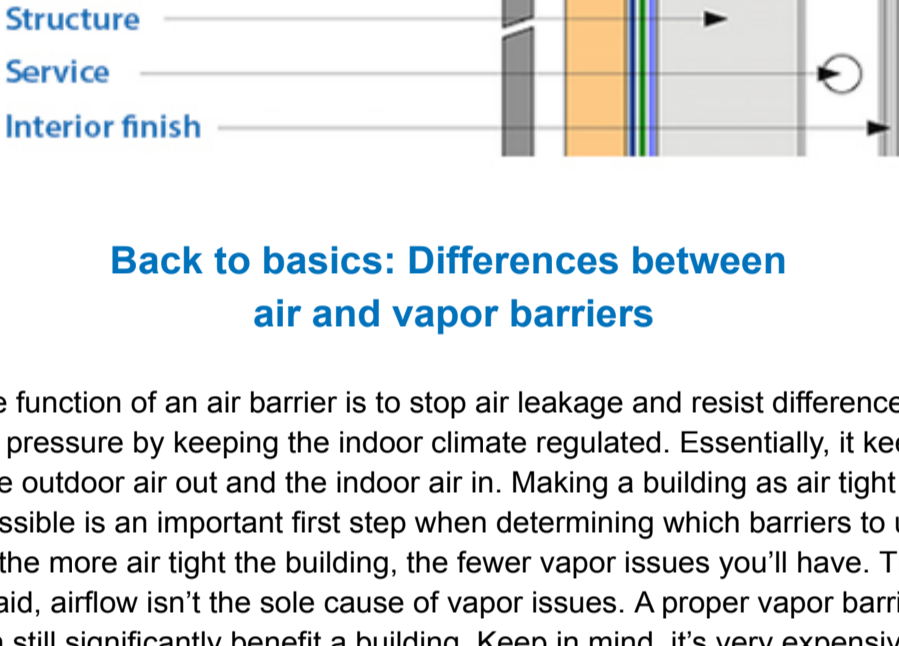
**Peter Barrett**  
Product & Marketing Manager  
Dörken Systems Inc.



### Product spotlight:-DELTA-TRELA Vapor Permeable Underlayment

DELTA-TRELA is a vapor permeable underlayment with structured separation and drainage, specifically designed for metal roofs and façades with metal cladding. The underlayment prevents corrosion and moisture accumulation underneath panels, helping to ensure the longevity of building materials. Remember, metal roofs and cladding are not sealed to the roof deck or sheathing, which means moisture can easily collect underneath the metal. If moisture is allowed to accumulate, two problems can arise—it can prematurely damage the roof substructure, and condensation on the underside of the metal can lead to corrosion, requiring upkeep sooner than necessary.

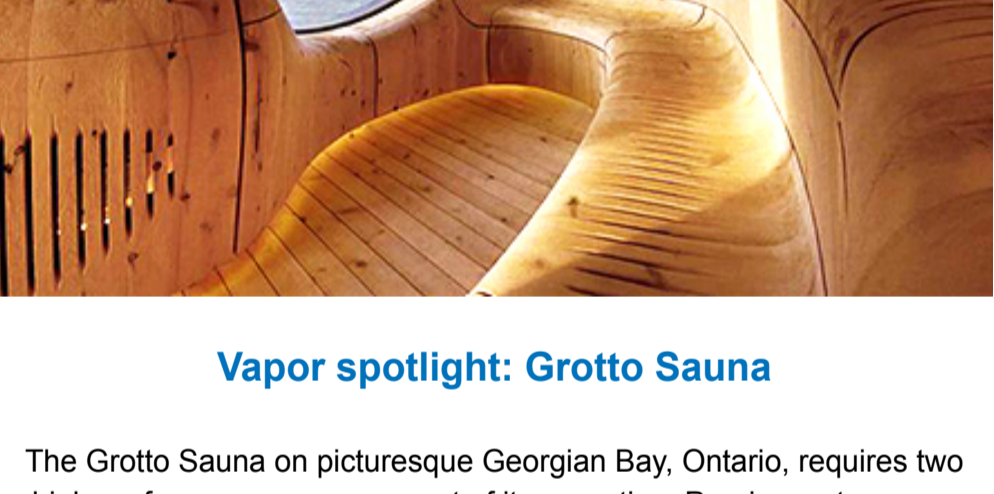
[See What Sets 'DELTA-TRELA' Apart](#)



### Back to basics: Differences between air and vapor barriers

The function of an air barrier is to stop air leakage and resist differences in air pressure by keeping the indoor climate regulated. Essentially, it keeps the outdoor air out and the indoor air in. Making a building as air tight as possible is an important first step when determining which barriers to use—the more air tight the building, the fewer vapor issues you'll have. That said, airflow isn't the sole cause of vapor issues. A proper vapor barrier can still significantly benefit a building. Keep in mind, it's very expensive to install moisture-control measures after a building is complete, so our advice is to plan for this step well ahead of time.

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### Vapor spotlight: Grotto Sauna

The Grotto Sauna on picturesque Georgian Bay, Ontario, requires two high-performance ovens as part of its operation. Pouring water on an oven creates steam that makes the humidity within the structure jolt up in short, extreme bursts. That's why architectural studio PARTISANS chose DELTA-FASSADE S to accommodate the temperature changes occurring inside and outside the structure. DELTA-FASSADE S has high vapor permeability, allowing for the moisture vapor that accumulates inside to escape. On the exterior, it acts as a durable drainage plane, channeling water from wind-driven rain and snow to the outside of the structure—perfect for a location that sees its fair share of both. Read on to explore this project in deeper detail.

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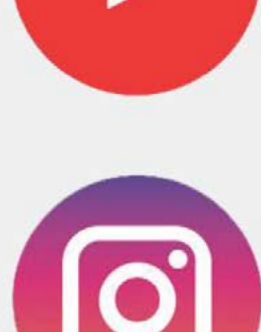
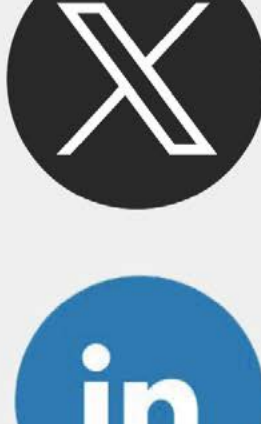


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