DELTA®

HIGH PERFORMANCE AIR & MOISTURE BARRIERS

DÖRKEN

Project Profile
Fire Station Headquarters – Lockhart, Texas
DELTA®-VENT SA | DELTA®-DRY & LATH
An Icon of Community Safety

➜ General Information

Building Name	Lockhart Fire Station Headquarters
Building Location	Lockhart, Texas
Country	USA
Project Size	2,700 sq. ft.
Building Type	Municipal Fire Station
Project Type	Institutional
Type of Cladding	Stucco
Total Building Costs	$850,000
Owner	City of Lockhart
Architect	Studio Steinbomer
General Contractor	Countywide Builders

➜ Project Description

A fire station is an icon of safety, part of the community, and central to everyday life. Recognizing the need to create a building that symbolized these values through design and performance was the driver behind the newly designed and rebuilt Lockhart Fire Rescue Headquarters in Lockhart, Texas. Designed by Studio Steinbomer and built by Countywide Builders, the new facility totals 2,700 ft^2.

Both Air Tight and Vapor Permeable

The exterior of the Fire Station is made up of stucco cladding – a design element that can be resistant to fire, rot, mold, impact, and termite infestation for as long as 100 years if properly installed. This design required a durable building envelope that could withstand a notoriously hot and humid climate in Texas – with a focus on air tightness and vapor permeability.

Better building performance depends largely on the building materials used. Using industry-leading technology, DELTA®-VENT SA creates a continuous water-, air-, and weather-tight barrier while staying highly permeable, so the building stays dry and lasts longer.

The advantage of having a vapor permeable wall assembly is that it allows the system to dry out when moisture gets into the wall assembly. A ventilated rainscreen prevents moisture intrusion from solar-driven moisture by separating (or decoupling) the absorptive cladding from the vapor permeable air barrier.

Designed with applicators in mind, DELTA®-VENT SA comes fully adhered for simple and straightforward application. With the self-adhesive edge-lap feature, ensuring an airtight overlap is easier and more secure than ever. The matte gray color also helps to reduce irritating glare during installation under the harsh Texas sun.

The 2-in-1 Solution

Winn Smith of Countywide Builders noted that using high-quality, durable materials was important to him because at the end of the day, he knows that he's responsible for the building's long-term integrity. To create a high-performance wall system that enhances building performance, DELTA®-DRY & LATH was selected to be used in front of DELTA®-VENT SA, across the entire headquarters exterior. Stucco is a great cladding, but applying it directly to any water-resistive barrier creates the risk of moisture retention, solar-driven moisture, and rot. This is why DELTA®-DRY & LATH is important.

DELTA®-DRY & LATH is a 2-in-1 product that combines the proven technology of the DELTA®-DRY rainscreen with an innovative fiberglass lath for a complete, one-step moisture control and lath system. By combining these two critical components, an entire step is eliminated from the construction process, providing easier and safer handling for the installer. The alkali-resistant glass lath is not affected by chemicals and will not corrode.

This design required a durable building envelope that would withstand a hot and humid climate.

DELTA®-DRY & LATH complies with ICC-ES AC 275 and meets ASTM E2925-17.

DELTA®-DRY & LATH is extremely durable and will protect the building from moisture damage well into the future.

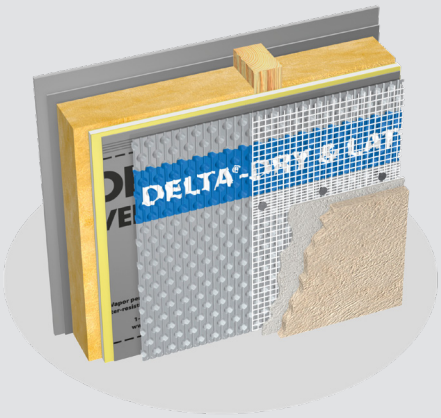
Air-gap Technology

Simplifying many steps, the ventilated rainscreen made of a special High-Density Polyethylene (HDPE) will help to eliminate the building enclosure's risk of solar-driven moisture before it can do any damage. At the same time, this one-step moisture control and lath system allows any incidental moisture from within the wall to dry to the outside.

Providing an air gap between the stucco and the substrates creates an air space between the cladding and the rest of the wall. This gap provides two important functions; one is to allow outward drying through a vapor-open water- and air-control layer, and the second is to prevent inward wetting as a result of moisture coming through a reservoir cladding.

Without breaking the bond between commonly used housewraps and cementitious stucco that can act as a surfactant, stucco cladding systems will continue to fail. But with the right kind of air gap, stucco will last hundreds of years.

Unlike traditional methods proven ineffective, the fire station's exterior cladding is efficiently uncoupled from the rest of the assembly, thereby giving it longevity and durability. Getting ahead of water and dampness is the only way to ensure new stucco and manufactured stone buildings live up to their full potential.



Don't let moisture ruin your buildings or your reputation. Combining **DELTA®-VENT SA** and **DELTA®-DRY & LATH** provides high vapor permeability along with the best water and air tightness available in the industry.

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