Nítra-Seal®
Nitrile-Advanced Vapor Barrier

Ease of Installation Saves Time and Money for Preemptive Solution To Mitigate Potential Gasoline Vapors

Nitra-Seal Provides Long-Term Protection for Future Restaurant Workers and Guests

Highlights

Nitra-Seal protects future restaurant workers and guests

Former Gas Station

Site Details

Site Type

Retail

Contaminants of Concern

Petroleum Hydrocarbons

Mitigation Approach

Nitra-Seal®

Project Summary

Property developers for a national restaurant chain planned a new restaurant building on an old gas station in Galveston, Texas. It is common practice in the retail restaurant industry that when confronted with building a restaurant on a former gas station, the property developers will specify a vapor mitigation system (VMS) into the construction plan. The VMS serves as a preemptive measure to address gasoline contaminants that might have escaped detection during the site closure process. In these instances, the property developers require that the vapor mitigation system installation be completed efficiently and at a competitive cost while providing comparable or better chemical resistance. After evaluating VMS options, the property development team specified Nitra-Seal as the technology best suited for this purpose. According to the Land Science certified applicator, in comparing their experience installing generic styrene-butadiene-rubber asphalt emulsions, Nitra-Seal's spray-applied nitrile-advanced asphalt latex core material was easier to apply and cured more rapidly. This saved time and money for the VMS installation, improving the project's overall construction efficiency, and enabling the restaurant to proceed toward its opening.

Nitrile-Advanced Asphalt Latex Compared to Generic SBR Asphalt Latex

Nitrile-Advanced Asphalt Latex

- Lab-proven to provide 10x higher chemical resistance
- Easier and faster to apply
- Equipment requires only soap and water to clean

Generic SBR Asphalt Latex

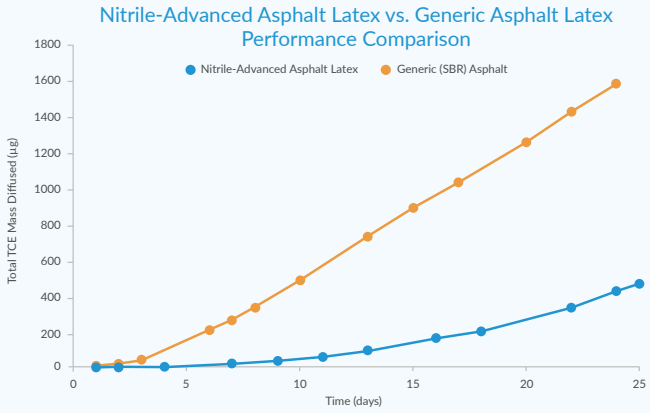
- Higher permeability increases risk of contaminant sorption
- Longer, slower application time
- Equipment requires petroleum-based solvents to clean

Technology

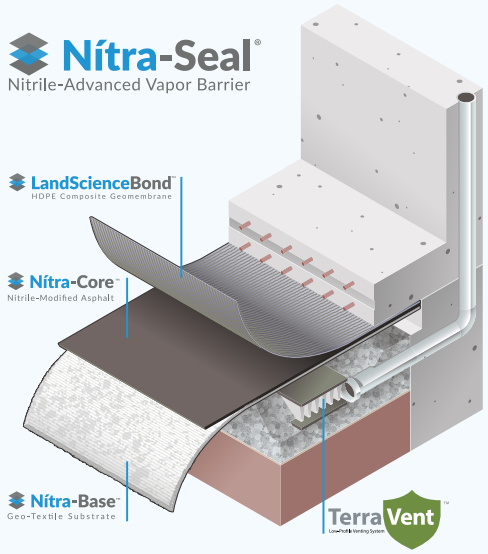
A Multi-Layer Base with Innovative Nitrile-Advanced Asphalt Latex Technology

Nitra-Seal is an update/improvement on current vapor barrier systems, providing a more chemically resistant spray-applied core material.[1] Nitra-Seal is a triple-layer system. The Nitra-Base layer (bottom) and the Land Science Bond layer (top) are composed of a HDPE material bonded to a geo-textile on the out-facing side. HDPE is known for chemical resistance, high tensile strength, excellent stress-crack resistance and highly reliable subsurface containment. The geo-textile, which is physically bonded to the chemical resistant layer, accomplishes two goals; it allows the Land Science Bond layer to adhere to the slab, and provides friction course between the Nitra-Base layer and the soil. The Nitra-Core layer is composed of a unique, nitrile-advanced asphalt latex which also provides additional protection against vapor transmission. Nitrile has been proven to offer exceptional chemical resistance in a wide range of applications. This layer creates a highly-effective seal around slab penetrations and eliminates the need for mechanical fastening at termination points.

1. U.S. and international patents pending.



TCE diffusion rates in Nitrile-Advanced Asphalt Latex barrier systems vs those utilizing Generic (SBR) Asphalt.



Results

The Land Science Certified Applicator efficiently installed Nitra-Seal per the manufacturer's recommendations, allowing the construction to proceed on schedule. Following the Nitra-Seal vapor barrier system's successful installation, future restaurant workers and guests will be protected from potential gasoline vapor migration into the building.

Are You Planning a Vapor Intrusion Mitigation Project? Contact us today for a free estimate.

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