Superior Chemical Resistance Over Any Vapor Barrier On The Market Today



The Technology at a Glance

TerraShield is a significant step forward for vapor intrusion barriers. Employing an innovative metallized film technology and nitrile-advanced asphalt latex core component, TerraShield provides superior chemical resistance over any existing vapor barrier currently on the market. It is the ideal vapor mitigation solution for residential, industrial, and commercial developments with volatile contaminant impacts that represent significant health hazards and economic liabilities.



The Difference is an Innovative Metallized Film Technology

Terra Shield

Aluminum Nitrile

Vapor Barrier

The Land Science research and development team of scientists have invested years in developing the TerraShield vapor barrier system, which delivers orders of magnitude higher vapor intrusion protection as compared to the leading vapor barrier system. The new, innovative, metallized material and multiple layers of protection are key to the increased performance. The R&D team also improved on the core material, incorporating nitrile, known for its chemical resistance, as a key component. The result is a 100 times more effective protection as compared to existing vapor barriers in recent laboratory tests.







Reduce Your Liability

When developing properties on sites with known environmental impacts, one of the biggest issues is the risk to human health. Failure to address these issues can result in adverse health effects and millions of dollars in legal exposure. TerraShield was designed specifically to eliminate risk of exposure by employing innovative technologies to provide best-in-class chemical resistance and durability. Backed by a robust warranty and installed by Land Science-certified applicators, each TerraShield installation is rigorously tested to ensure the quality of every seal and ultimately the complete passive vapor barrier system installed.

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



Accelerated comparison showing the relative TCE flux through the vapor barrier base components: TerraBase+, an innovative metallized membrane film, versus 10 mil HDPE.

Nítra-Core[®]

Nitrile-Modified Asphalt



Accelerated comparison showing relative TCE flux through the two polymer-modified spray-applied asphalt layers tested over time. Both layers were sprayed to an identical thickness (20 mil) for the test.









Nitra-Core is a nitrile-advanced asphalt latex that is spray applied to a thickness of 40 mils. It is applied to the TerraBase layer and provides a seal around seams, penetrations, and perimeter terminations.

TerraBase+ is a patent-pending 25-mil thick composite membrane comprised of flexible, chemically resistant polyethylene (PE) and metallized films PET/MET, laminated to a tear resistant woven polyethylene and a high puncture reinforcement geotextile.

Land Science Protection Fabric is a proprietary protection layer comprised of a polypropylene (PP) geotextile. The protection fabric layer is placed over Nitra-Core to enhance the curing of the membrane, increase puncture resistance, and provide the ability to bond the vapor barrier directly to the underside of the concrete slab.

TerraVent is a low-profile trenchless, flexible, sub-slab vapor collection system used in lieu of perforated piping. It consists of a heavy duty 3D, high flow, polypropylene dimpled core which is then wrapped and bonded with a non-woven geotextile to prevent penetration; and made from 100% post-industrial/pre-consumer polypropylene regrind material.

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

1011 Calle Sombra, San Clemente, CA 92673

Phone: (949) 481-8118

landsciencetech.com

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