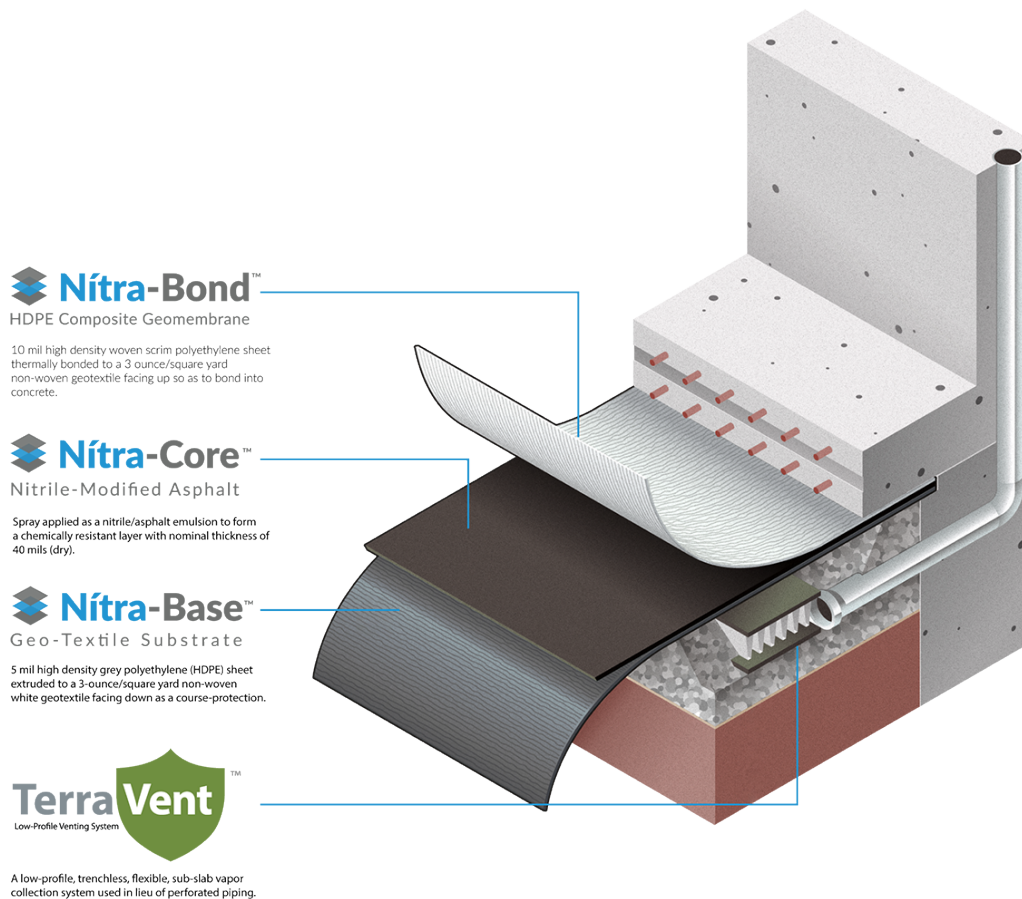


Nitra-Seal™ Technical Data Sheet

Nitra-Seal is an update/improvement on current vapor barrier systems, providing a more chemically resistant spray-applied core material. Nitra-Seal is a triple-layer system. The Nitra-Base layer (bottom) and the Nitra-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 Nitra-Bond layer to adhere to the slab, and provides a friction course between the Nitra-Base layer and the soil.

The Nitra-Core layer is composed of a unique, nitrile-modified asphaltic membrane which also provides additional protection against vapor transmission¹. 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 US and International patents pending

Nitra-Core General Properties

Properties

Nitra-Core

Application to Nitra-Base

40 mils (23 ft²/gal)

Typical Uncured Properties

Properties

Test Method

Nitra-Core

Specific Gravity

ASTM D 244

1.0

Brookfield Viscosity

ASTM D 2196

75 – 90 centipoises

pH

Oakton

10-13

Residue Content

ASTM D 2939

62 – 65%

Color

Brown to Black

Demulsibility

ASTM D 6936

35 – 40%

Non-Toxic

No Solvent

Shelf Life

6 months

Typical Cured Properties with Nitra-Base

Properties

Value

Nitra-Core

TCE Diffusion Coefficient

Land Science Internal Method

On going

Benzene Diffusion Coefficient

Land Science Internal Method

On going

Packaging

Properties

Value

Drums

55 gal

Totes

275 gal

Nitra-Base General Properties

Properties	Test Method	Nitra-Base
Film Thickness		18 mil
Color		Gray HDPE - White Geotextile
Weight	ASTM D751 - 06	6.8 oz/yd ²
Tensile Strength (Grab)	ASTM D751 - 06	CD - 186.8 lbf MD - 53.4 lbf
Tear Strength (Trapezoidal)	ASTM D751 - 06	CD - 36.7 lbf MD - 28.0 lbf
Puncture Resistance	ASTM D4833 - 07	61.2 lbf
Life Expectancy	ASTM E 154 - 93	Indefinite
Elongation	ASTM D751 - 06	CD - 72.1% MD - 49.6%
Chemical Resistance		Excellent
Packaging		102" x 150' Roll

Nitra-Bond General Properties

Properties	Test Method	Nitra-Bond
Film Thickness		23 mil
Color		Clear HDPE - White geotextile
Weight	ASTM D751 - 06	6.8 oz/yd ²
Tensile Strength (Grab)	ASTM D751 - 06	CD - 270.5 lbf MD - 350.9 lbf
Tear Strength (Trapezoidal)	ASTM D751 - 06	CD - 48.3 lbf MD - 44.4 lbf
Puncture Resistance	ASTM D4833 - 07	98.6 lbf
Life Expectancy	ASTM E 154 - 93	Indefinite
Elongation	ASTM D751 - 06	CD - 26.0% MD - 32.6%
Chemical Resistance		Excellent
Packaging		102" x 150'