



# MOISTURE OUT. | CONFIDENCE IN.

## TUFF-N-DRI BASEMENT WATERPROOFING SYSTEM

CCMC 13068-R

**TUFF-N-DRI® is North America's #1 brand of waterproofing for new basements. It protects against three main sources of moisture from basement walls – leaks, seepage and interior condensation.**

### Installed by select applicators

TUFF-N-DRI Basement Waterproofing System is installed only by select Barrier Solutions Contractors. These contractors undergo training to ensure the highest quality application.

### Surface preparation

The wall surface should be smooth and monolithic. Remove loose aggregate and sharp protrusions from the wall. Voids, spalled areas and exposed aggregate should be patched with a suitable mastic before spraying. TUFF-N-DRI membrane does not require any priming or special preparation. This means block walls don't require parging when the full system is used.

### System application

TUFF-N-DRI membrane is sprayed evenly over the entire foundation wall. WARM-N-DRI® Foundation Board is applied over the waterproofing membrane as it cures. TUFF-N-DRI Basement Waterproofing System can be applied when ambient temperatures are as low as -18°C (0°F), allowing for fewer construction delays. TUFF-N-DRI membrane may be applied on poured concrete and block foundations. On poured concrete basements, TUFF-N-DRI can be applied as soon as the forms are removed, and on block basements, as soon as the mortar is dry.

### Foundation board performance

WARM-N-DRI Foundation Board keeps foundation wall temperatures closer to the air temperature of the basement, which helps reduce interior condensation. Reduced condensation ensures less humid, more comfortable basement space. The placement of the foundation board on the wall's exterior also helps reduce the risk of damage due to freeze/thaw cycles, particularly if the foundation board is extended to the sill plate.

In addition, the foundation board protects TUFF-N-DRI membrane from damage during backfilling or damage from other construction trades. The compressibility of the foundation board will also absorb moderate soil expansion and help protect the basement wall.

To assist drainage, WARM-N-DRI Foundation Board should extend to the footing and connect to a functioning perimeter drainage system. The foundation board is required for all warranted TUFF-N-DRI Basement Waterproofing System installations.

### Building Code

Computer analysis of home energy use indicates that a considerable portion of a typical home's energy loss comes from heated, uninsulated basements. By installing the exterior foundation board to the sill plate, the entire basement wall is insulated, and energy efficiency is maximized. Because WARM-N-DRI Foundation Board provides insulating performance, it assists with compliance to this code.

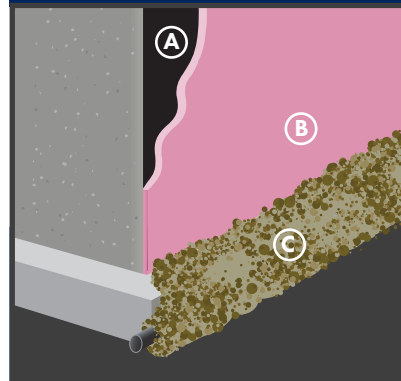
### Environmentally responsible

TUFF-N-DRI membrane uses a non-flammable, water-based carrier that is environmentally responsible. It has been thoroughly tested by independent labs to prove that no harmful leaching of the membrane occurs.

### Availability and cost

TUFF-N-DRI Basement Waterproofing System is competitively priced and available through your local Barrier Solutions Contractor. For details, contact your local Barrier Solutions Contractor, call 800-DRY-BSMT or visit [TremcoBarrierSolutions.ca](http://TremcoBarrierSolutions.ca).

### TUFF-N-DRI features a reliable system to control moisture from basement walls:



- A** A flexible waterproofing membrane is spray-applied to seamlessly span foundation wall shrinkage cracks and seal out water penetration.
- B** WARM-N-DRI Foundation Board assists drainage and insulates basement walls to reduce interior condensation.
- C** Shown with pipe and stone.



# Specifications



## Membrane Properties

Type	Polymer-enhanced asphalt liquid-applied membrane	
Colour	Black	
Solids	64% ± 3% (percent by weight)	
Density	8.2 ± .15 lbs/gal	
Application	Airless spray	
Application Temperature	Minimum -18°C (0°F)	
Application Thickness	60 mils (wet) <sup>1</sup>	
Cure Time	16–24 hrs (under normal conditions)	
Adhesion to Concrete (Peel, N/m)	<b>Results:</b> Exceeds	<b>Method:</b> ASTM C-836
Elongation	<b>Results:</b> >2000%	<b>Method:</b> ASTM D-412
Crack Bridging Ability	<b>Results:</b> Passes	<b>Method:</b> ASTM C-836
Water Vapour Permeance	<b>Results:</b> <1 perm for 40-mil dry coating (grains/sf/hr)	<b>Method:</b> ASTM E-96 Wet Method
Liquid Water Absorption	<b>Results:</b> 0.3% [wt]	<b>Method:</b> ASTM E-1228 <sup>2</sup>
Resistance to Degradation in Soil	<b>Results:</b> Good	<b>Method:</b> ASTM E-154
Mould Growth and Bacterial Attack	<b>Results:</b> No Degradation	<b>Methods:</b> ASTM D-3273, ASTM D-3274

<sup>1</sup> Measured in place with an ASTM D-4414 notch film gauge. Wet film measuring 60 mils cures to 40 dry mils.  
<sup>2</sup> 72 Hour water soak 1" x 2" x 0.40" samples of waterproofing compound.

For more details on TUFF-N-DRI, contact your local Barrier Solutions Contractor, call 800-DRY-BSMT or visit our Web site at [TremcoBarrierSolutions.ca](http://TremcoBarrierSolutions.ca)

Your local Barrier Solutions Contractor:

## Board Properties

Type	WARM-N-DRI Foundation Board				TUFF-N-DRI Barrier Board			
Board Size	4' x 8'	4' x 4'			4' x 8'	4' x 4'		
Board Thickness	3/4"	1-3/16"	2-3/8"	3-1/2"	3/4"	1-3/16"	2-1/8"	2-3/8"
Drainage Ability (hydraulic gradient of 1.0)	>70	>110	>210	>290	>50	>80	>130	>160
Board Thickness	3/4"	1-3/16"	2-3/8"	3-1/2"	3/4"	1-3/16"	2-1/8"	2-3/8"
Gallons/Hour/Lineal Foot <sup>4</sup>	>70	>110	>210	>290	>50	>80	>130	>160
Thermal Resistance								
Board Thickness	3/4"	1-3/16"	2-3/8"	3-1/2"	3/4"	1-3/16"	2-1/8"	2-3/8"
Resistance	R-3	R-5	R-10	R-15	R-3 <sup>5</sup>	R-5 <sup>5</sup>	R-9 <sup>5</sup>	R-10 <sup>5</sup>

<sup>4</sup> Drainage rates with 10% board compression. At 65% compression, foundation board has the drainage capabilities of coarse sand.

<sup>5</sup> As manufactured resistance values (R-value)

