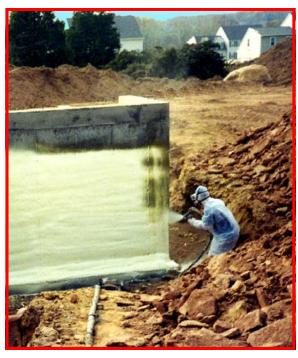


SPRAY POLYURETHANE INSULATION FOR SUB-GRADE APPLICATIONS

Profoam spray-in-place, closed-cell polyurethane insulation can be applied to the exterior side of basement walls to provide both insulation and dampproofing. Additionally, closed cell spray polyurethane insulation may be applied to a bed of gravel prior to pouring a concrete slab.

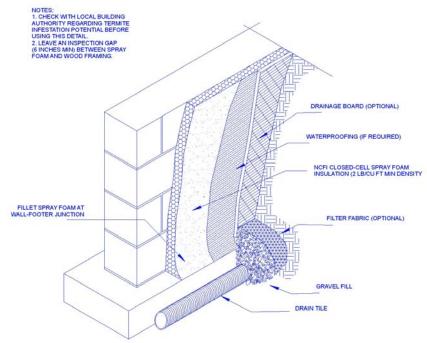
- Seamless
- Fully adhered
- Highly energy efficient
- Eliminates condensation
- Masonry/concrete becomes a thermal mass
- Seals all thru-wall penetrations
- Seals construction joints/gaps/cracks

Spray-in-place polyurethane has been the insulation of choice for masonry construction in commercial applications since the 1980's. As homeowners demand more energy efficient designs, the use of polyurethane insulation has been rapidly expanding. One of the best residential applications derived from the commercial market is below grade



Spray Application to Exterior Foundation Wall

(sub-grade) exterior insulation of masonry and concrete walls, floors, and slabs. Unlike other types of insulation, polyurethane insulation resists water penetration, retaining its high R-value. Because spray-in-place polyurethane insulation is both fully adhered and closed-cell, it provides dampproofing to your structure as well as insulation.



A two year sub-grade test by NRC-CNRC¹ concluded:

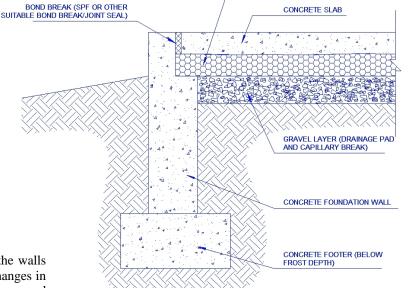
- SPF exterior basement insulation thermal performance was stable and sustainable.
- 2. Moisture management capabilities of sub-arade SPF were confirmed.
- 3. Physical properties were retained.

¹NRC-CNRC, "In-situ Performance Evaluation of Exterior Insulation Basement System (EIBS)--Spray Polyurethane Foam Summary Report."

Spray Polyurethane Insulation Application to Gravel sub-floor prior to pouring Concrete Slab



NCFI CLOSED-CELL SPRAY POLYURETHANE FOAM UNDER ENTIRE SLAB (2 LB/CU FT MIN DENSITY)



Thermal Mass = Energy Savings

By insulating the **exterior** of concrete or masonry, the walls and floors function as a **thermal mass** that resists changes in temperature. This leads to stable room temperatures and reduces the energy required to maintain the room at the desired temperature. Thermal mass saves you money.

TYPICAL PHYSICAL PROPERTIES*

Profoam Spray Polyurethane Insulation is a two-part, closed-cell system with high R-value designed to provide an air and moisture barrier for general construction

<u> </u>			
Core Density	2.0 lb/ft ³	Thickness	R-Value
Moisture Vapor Transmission	1.3 perm ⋅ inch	(inches)	(aged) (°F•hr•ft²/Btu)
Flame Spread (ASTM E 84)	Less than 25 @ 4 inches thick	1/2	3.2
Smoke Development (ASTM E 84)	Less than 450	1	6.8
Air Leakage (ASTM E 283)	0.000 cfm/ft ² @ 1.57 psf	2	13
Water Resistance (AATCC 127 -1998)	No leakage @ 56 ft H ₂ O	3.5	22
FEMA Flood Resistant Material	Class 5		

^{*}Physical properties may vary dependent on the specific system used.



