HEATLOK SOYA
SPRAY POLYURETHANE FOAM

the solution for a dry, comfortable and durable basement.

The basement is a high humidity zone, favorable to the development of harmful mold. According to independent laboratory testing[2], no mold growth is possible in HEATLOK®SOYA. There is no nutritional source to promote bacteria growth. The product is resistant to water and humidity. Several studies[3] demonstrate that it is the ideal insulation for flood prone areas. The polyurethane foam remains in place even after a flood. It does not degrade and once dry, HEATLOK®SOYA recovers all of its original physical properties.

In brief, installation of HEATLOK®SOYA beneath the slab and on foundation walls saves time as well as material, while providing a superior, durable insulation and seal, all at a competitive cost.

Launched in 2006, HEATLOK®SOYA is a product made in Canada manufactured with 7,5% recycled plastic bottles. To date, Demilec has recycled over **300 000 000** 591ml plastic bottles. The installation generates zero waste, zero trash on the jobsite and the product adapts to all surfaces, shapes and volume. There is no packaging, the system is sold in liquid form in returnable or recyclable containers. HEATLOK SOYA is applied exclusively by accredited contractors, certified by an independant 3rd party, in conformity with CAN/ULC S705.2.

To see the performance test video for Radon control : **http://demilec.com/en/videos**

References

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3. Honeywell. Closed-cell spray foam : A better building technology. Severe Weather
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   FEMA. (December 2010). Home Builder's Guide to Coastal Construction. Technical fact sheet series. FEMA P-499
   CMHC (1999). Basement walls that dry quickly. Research Highlight, Technical series 99-109

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THE GREEN SOLUTION
HEATLOK SOYA
FUNGI RESISTANCE

En choisissant ce papier écologique, DEMILEC a permis d'épargner les ressources suivantes :

PRÉSERVATION DE	ÉCONOMIE DE	RÉDUCTION NETTE DES GAZ À EFFET DE SERRE	BOIS ÉCONOMISÉ	RÉDUCTION DES DÉCHETS SOLIDES À ENFOUIR	DIMINUTION DE LA CONS. ÉNERGÉTIQUE
166 ARBRES	549 228 LITRES D'EAU	26 313 LIVRES	95 968 LIVRES	14 910 LIVRES	150 171 (BTU) (000)

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ZeroODS

HEATLOK™ SOYA
SPRAY POLYURETHANE FOAM

for basements

(Radon Control)

DEMILEC

HEATLOK SOYA
SPRAY POLYURETHANE FOAM

more than just basement insulation

The basement is often a problem area: high humidity, flooding, mold…. With the new energy requirements in the Ontario, BC and Quebec Building Code, in some requirements it is now mandatory to insulate below the concrete slab. The insulation must have a minimum value of R-5 or R12 over the full surface. Furthermore, protection against underground gases **(subsection 9.13.4 of the NBC and SB-9 for OBC)**, mainly Radon gas, must be installed to comply with these requirements. HEATLOK®SOYA provides insulation and a perfect seal in a single application keeping the occupants warm inside and underground gases, namely radon, outside.

With an R-value of R-6/inch, HEATLOK®SOYA applied 1¼" (32mm) thickness provides an insulation of R-7.5 beneath the entire surface of the concrete slab, exceeding code requirements. The product is sprayed directly onto the crushed stone providing continuous insulation, free of joints. HEATLOK®SOYA has a very high resistance to compression (28 psi). Workers can walk over the foam with equipment without damaging it; the product does not crack or break apart. In a single step, installation is fast and requires only one applicator.

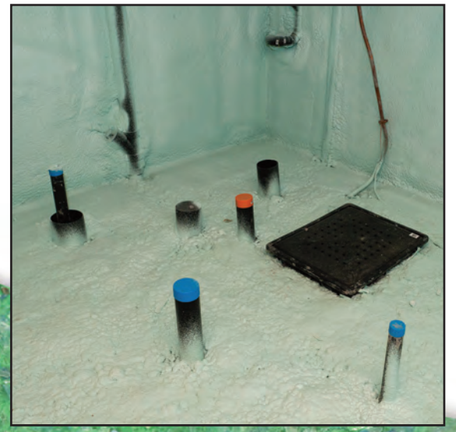
The Canadian government has modified the threshold for underground gases. The new requirements of the Canadian Building Code **(sub-section 9.13.4)** necessitate the installation of an air barrier system under the slab to prevent radon gas infiltration. Beyond its high insulation factor, HEATLOK®SOYA performs as an air barrier as well as a vapor barrier. 1" (25mm) of the product exceeds 500 times the air barrier material requirements and provides an air barrier system. When applied, the product expands 30 times its volume in 5 seconds.

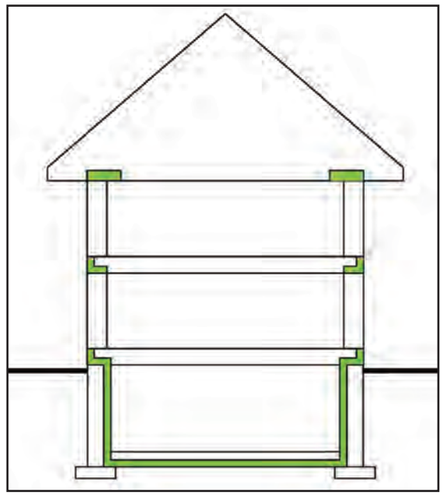
All columns, plumbing vents, sump, drains penetrating the slab and walls are sealed during the same application. Unlike other products on the market, HEATLOK®SOYA insures seamless impervious work, with exceptional sealing properties, preventing underground gas infiltrations.

Minimum Insulation values required

Ontario SB-12	Full Surface Below grade slab	Edge of below grade slab	Heated slab or ≤ 600mm below grade	Basement Wall
Zone 1 (<5000 HDD)	—	R-10	R-10	R-12 R-20 [2]
Zone 2 (>5000 HDD)	R-5 [1]	R-10	R-10	R-12 R-20 R-22 [2]
Addition	—	R-10	R-10	R-20
Québec Part 11				
(<6000 HDD)	R-5	R-4	R-10	R-17 [3]
British Columbia Part 10				
Residential (<5 stories)	—	R-10	R-12	R-12

1- Zone 2 table 2.1.1.3.A AFUE ≥90% compliance package B,C,E,F,G,I,J,K,L,M = R-0
2- Depend on applicable compliance package
3-Total R-17 with a minimum R-4 insulation thermal break structure 1RSI = 5,678R
For more information see Typical HEATLOK®SOYA Details Wood Framing Construction

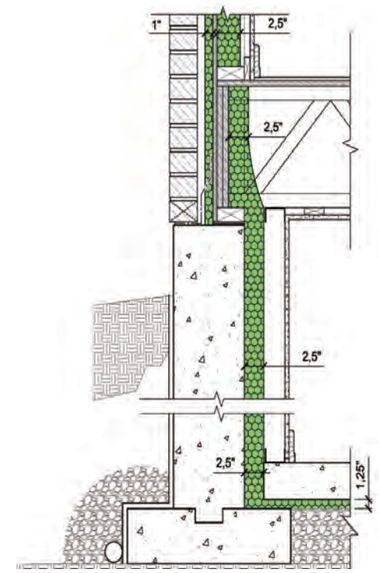




HEATLOK®SOYA applied under the slab, on foundation walls and rim joists, provides a completely sealed and continous shell from slab to ground level floor. Likewise, a thermal break between the foundation and the slab is required **(minimum R-4 or R-10)**. The seamless continuity of the spray polyurethane between the concrete slab and the wall ensures thermal break.

With the R 6 per inch of HEATLOK®SOYA is easy to reach foundation walls code requirements creating a thinner wall and saving floor space. Another advantage to insulating the basement in one step (i.e. insulation under the slab, foundation walls and rim joists) is the cost saving. The cost of the product will be less per square foot, since the cost of the applicator's displacement is amortized in the volume installed, compared to a panel insulation system that requires several steps and leaves opportunity for error. In one single step, we achieve a perfect seal of the building envelope. HEATLOK® SOYA provides insulation, air barrier and vapor barrier of superior quality in one efficient application. According to a CMHC[1] study, the adhesion and quality of the spray foam insulation remains intact in the long term. The adhesion to concrete walls is perfect; there is no possible room for condensation to accumulate and for mold to develop.

Interior foundation wall



Exterior foundation wall