



EXTERIOR FOUNDATION APPLICATION

**FOR A DRY
AND DURABLE
EXTERIOR
FOUNDATION**

A stable and watertight building envelope is difficult to achieve when weather such as rain, snow, and ice are impacting your foundation. Issues such as cracks, water infiltration, and wood rot undermine the best building structure.



CLOSED-CELL



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With an insulation value of R-6/inch, the Heatlok series applied at a thickness of 2" (65mm - R-15 for the insulation only), achieves the R-17 (for the complete wall assembly) building code' requirement of residential foundation walls and exceeds the R-12 requirement for commercial foundation walls. The product is sprayed from the exterior and provides continuous, fully bonded and seamless insulation. No seams to tape, no gaps to fill, and no boards to glue in place. Heatlok expands 30 times its initial volume in 5 seconds and seals the entire foundation. Heatlok was tested below grade by the NRC² and the study concluded that the product retains all of its properties and does not absorb water over time.



NEW CONSTRUCTION

In new buildings, insulation is often installed from the interior. Yet the foundation can easily be accessed from the exterior and insulated on its cold side, below grade, before backfilling, which is the preferred method of insulating a below grade foundation. Existing homes often have to be excavated to waterproof the foundation as a result of water infiltration. Heatlok can be sprayed on the entire surface of the foundation and even cover the footing to create a slope towards the drain. Applying Heatlok directly to the concrete, blocks, or stone is recommended, depending on the type of foundation. However, Heatlok is not a waterproofing product, so applying a polyurea, bituminous coating, or drainage membrane directly on the foam is recommended in areas where water accumulates or the water table is above the footings.



- ⬡ The photo on the left shows a bituminous coating applied directly over the foam.
The photo on the right shows a drainage membrane that will be lifted in front of the foam as the soil is backfilled.



- ⬡ The Heatlok series is ideal for insulating old concrete or stone foundations from the exterior.

The ideal time and most effective way to insulate and waterproof the foundation is from the exterior while excavating an existing foundation and before backfilling a new foundation.



AND RENOVATION



When an old foundation is excavated, it is the ideal time to insulate from the exterior with Heatlok spray foam.

BENEFITS

- High R-value means lower energy costs
- Perfect seal eliminates leaks and water damage
- Quick installation saving time on the project
- Good adhesion means it will not sag or move over time
- Suitable for all building types
- Will not support mold or fungal growth
- Durable and will not deteriorate over time
- Continuous barrier prevents water infiltration
- Resistant to flood damage^{3,4} and can stay in place after a flood

FINISHING THE ABOVE-GRADE PORTION

What about the above-ground portion of the foundation? Many options are available but one option is to install a structure (Z-bars are recommended) on the above-ground portion of the foundation only. This must be done before applying Heatlok. Once the insulation work has been completed, we recommend installing a light-cement board on the Z-bars. A finish is then applied over the light-cement board once the backfilling has been completed to provide the desired appearance.



Example of the above-grade portion of the foundation.

Exterior Application Products

HEATLOKTM
SPRAY POLYURETHANE FOAM
SOYA HFO

HEATLOKTM
SPRAY POLYURETHANE FOAM
SOYA

References:

1. Quebec and Canada building code 2005 and 2010
2. In-situ Performance Evaluation of Exterior Insulation Basement System (EIBS) - Spray Polyurethane Foam Summary Report - IR-820F, NRC
3. Technical Bulletin 2, Flood Damage - Resistant Materials Requirements, FEMA, August 2008
4. Severe Weather and Closed-Cell Spray Foam: A Better Building Technology, Honeywell