

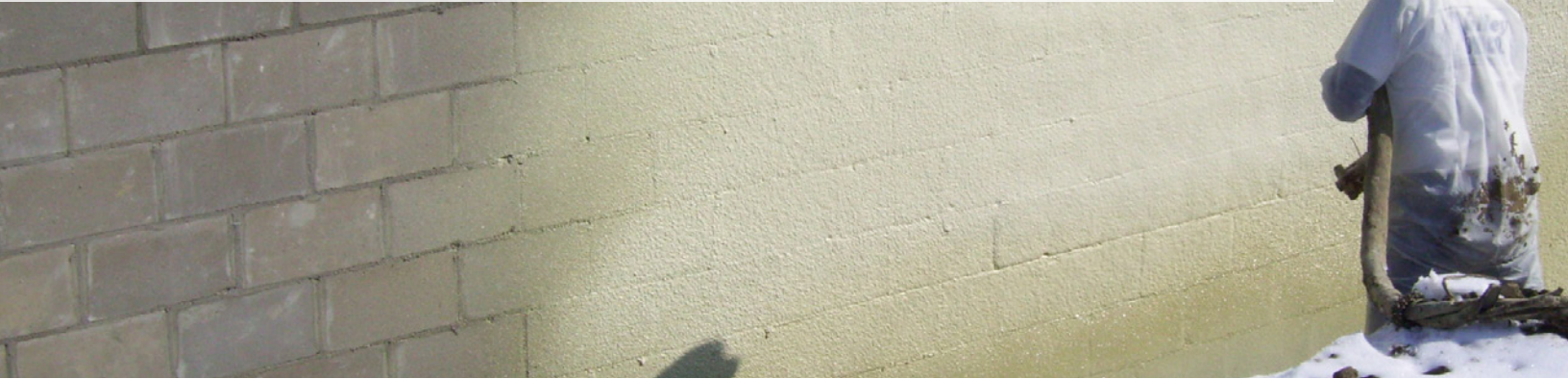


 **BASF**

We create chemistry

**Spray Foam for Residential and
Commercial Foundations and
Below Grade Applications**

“...insulating the exterior edge of a slab can reduce heating bills by 10% to 20%.”*



Exterior foundation insulation for both commercial and residential buildings can provide energy savings and a more comfortable, conditioned below grade space. Interior basement walls and crawlspaces can also benefit from insulation and air sealing to improve energy efficiency, durability and comfort of these structures. The use of insulations below slab also highly improves the efficient operation of the home or building. Spray foam insulations are the superior choice in insulating and air sealing all these areas.

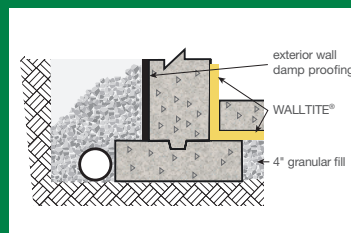
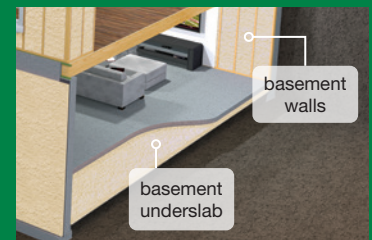
WALLTITE® closed-cell spray polyurethane foam (SPF) is a plastic insulation product that is foamed in place during a field-applied installation. WALLTITE offers a higher R-value^{1,2} than other conventional products of the same thickness, while also controlling moisture and vapor transmission.

By virtue of the field-applied installation, WALLTITE covers the foundation or basement wall in a monolithic sheet which seals around projections and penetrations. In exterior applications, the foam is sprayed to form a cove to protect the footing and direct water towards drainage systems. The cured WALLTITE closed-cell SPF provides a smooth surface to receive a waterproof or damp-proof coatings. This eliminates the need for applying a mortar or plaster seal before installing these coatings.

As the foam is installed it creates a mechanical and chemical bond directly to the foundation or basement wall surface, providing a seamless insulation, air barrier and vapor control layer all in a single application. In below slab applications, the use of WALLTITE closed-cell SPF provides a solid continuous insulation layer which also provides vapor resistance and helps to mitigate soil gas entry into the home, including radon.

Areas for Closed-cell Spray Foam:

- Exterior Foundation
- Slab Edge
- Under Basement / Floor Slab
- Interior Basement Walls
- Rim / Band Joist areas
- Crawlspace Walls (Conditioned)
- Underside of Floors (Unconditioned)



Benefits of WALLTITE Closed-cell Spray Foam Insulation for Foundations and Below Grade Applications:

- Provides a fully-adhered, monolithic layer of insulation on the foundation, allowing the home to use thermal mass for energy savings and increased comfort
- Provides a high R-value per inch and can be installed at greater thicknesses
- Exterior application provides moisture management to the structure without reducing the useable space within the basement or below ground level areas
- Provides an insulation system not easily damaged by construction process (as is typically the case with boardstock type insulation)
- Tested to withstand typical below grade hydrostatic pressures and helps contain soil gas migration
- SPF is recognized by the Federal Emergency Management Agency (FEMA⁴) as a flood-damage resistant material suitable for use in defined floodplain areas
- Seamless, customized insulation for tight and hard to reach areas
- Provides thermal protection and helps prevent thermal expansion and contraction

WALLTITE closed-cell SPF insulation has been tested by the National Research Council of Canada and found to be effective in reducing moisture and thermal-related problems associated with uninsulated foundations. These issues include cracking, shrinkage, wetting and drying (mold) problems most associated with uninsulated foundations.

In addition, WALLTITE[®] Series in North America was the first low global warming potential (low-GWP) spray foam that was tested to control radon gas from entering through foundation and basement walls or slabs.

Through extensive testing and field applications, BASF spray foam systems have proven to provide long-lasting protection.



Basement Foundation Bare



Foundation Spray Foam Insulation Applied



Waterproof Membrane (Polyurea⁵) Applied

How Spray Foam Stacks Up Against Other Choices

Spray foam insulations like WALLTITE meet and exceed building code requirements, giving the most flexibility for the use in basements and crawlspaces, on foundation walls, and other below grade areas. The chart below shows properties of the conventional materials used in these spaces - the features and benefits of using closed-cell SPF more than outweigh any premium for installation of these materials.

For interior applications, in finished or storage areas the spray foam is required to be covered with a code-prescribed thermal barrier (fire protection). Due to the technical skills required, these systems must only be applied by properly trained, professional applicators. In areas where probability of termite infestation is very high, verify local building code requirements prior to using SPF below grade.

Criteria	BASF Closed-Cell SPF WALLTITE®	EPS Board	XPS Board	Fiberglass Board	Polyisocyanurate Board (Foil-Faced)
R-value per inch	6.7-7.4	4.0	5.0	4.0	6.0-6.9
Vapor Permeability at R-10	0.9	3.2	0.8	Permeable - Not Rated	<0.5
Air Permeability ⁶	<0.02	0.1	0.1	2038	<0.02
FEMA Flood-Damage Resistant Material	Y	N	Y	N	Y
Seamless	Y	N	N	N	N
Self-Adhering	Y	N	N	N	N

¹ "R-value" means resistance to heat flow. The higher the R-value, the greater the insulating power. Compare insulation R-values before you buy. There are other factors to consider. The amount of insulation will depend upon the climate, the type and size of your house, and the fuel use patterns and family size. If you buy too much insulation it will cost you more than what you will save on fuel. To achieve proper R-values, it is essential that this insulation be installed properly.

² ASTM E 84 is a test designed for sample thickness up to four (4) inches. This numerical flame spread rating does not reflect hazards presented by this or any other material under actual fire conditions. Polyurethane foam systems should not be left exposed and must be protected by a minimum 15 minute thermal barrier as allowed by applicable building code(s) and Code Officials. Building Codes provide guidelines representing minimum requirements. Further information is available at www.iccsafe.com. Consult all Authorities Having Jurisdiction (AHJ) over an area for additional or specific requirements prior to beginning any project.

³ Note: In areas where termites are found, special precautions are needed for plastic foam use. Please consult local building code requirements before using this system.

⁴ Federal Emergency Management Agency (FEMA) Flood Damage-resistant Materials Requirements Technical Bulletin 9/17/2008.

⁵ Corrmnet Engineering Services, Inc. has performed Modified ASTM C 1306-05a test method entitled "Hydrostatic pressure Resistance of a Liquid-Applied Waterproofing Membrane" on June 16, 2010. The membrane has held up to maximum 45 psig applied pressure and no evidence of water leaking was observed.

⁶ Air Permeability Unit = L/s/m² 75 Pa 1 in.

This brochure complies with the Federal Trade Commission labeling and advertising of home insulation rules and regulations, Federal Register, 16 CFR Part 460 Labeling and Advertising of Home Insulation: Trade Regulation Rule; Final Rule, Monday, January 22, 2018

* <https://www.energy.gov/energysaver/weatherize/insulation/where-insulate-home>

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