

# A Preventative Solution

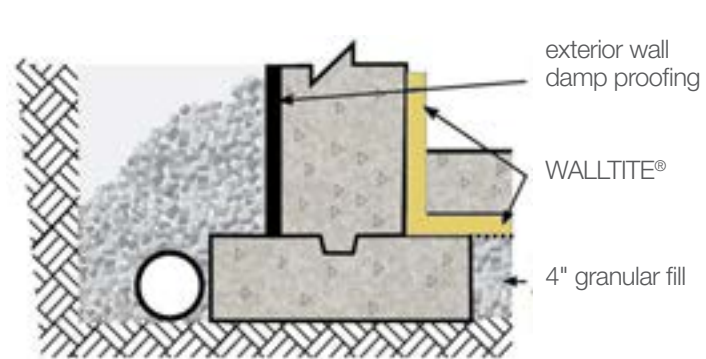
## TYPICAL BASEMENT FLOOR TO FOUNDATION WALL JUNCTION COMPLYING WITH INTERNATIONAL BUILDING CODE



Currently, the International Residential Code (IRC) Appendix F details the requirements for proper radon control methods when implementation is required by the Authority Having Jurisdiction (AHJ). This appendix details the methods for retarding the entry of soil gases as well as the implementation of a passive or active depressurization system. In general, the key to a proper system is by separating the building (conditioned space) from the ground to be protected from soil gas ingress by an air barrier system. BASF WALLTITE® meets the requirements of an air barrier material.

In addition, WALLTITE® provides effective resistance to air infiltration and exfiltration to satisfy air barrier properties in reference to Sections R405.2.2, R408.1 - R408.3, R506.2.3 of the IRC.

## ALTERNATIVE BASEMENT FLOOR TO FOUNDATION WALL JUNCTION



WALLTITE® applied on basement walls and under slab

For more information  
contact BASF Corporation at:  
[www.spf.basf.com](http://www.spf.basf.com)  
1-888-900-FOAM



air barrier  
**abaa**  
association of  
america

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**BASF**  
We create chemistry



## Protecting Homes: Radon Control with WALLTITE®



# Understanding Radon

## WHAT IS RADON?

The U.S. Environmental Protection Agency (EPA) describes radon as a radioactive gas. It comes from the natural decay of uranium that is found in nearly all soils. It typically moves up through the ground to the air above and into your home through cracks and other holes in the foundation. You can't see, smell, or taste radon gas, but it may be a problem in your home.

## WHERE IS RADON?

Radon gas moves freely through the air, groundwater, and surface water. The main source of indoor radon gas infiltration is from soil into buildings.

Due to radon's electrically charged state, it rapidly attaches to most surfaces it encounters, including airborne particles (e.g., dust), walls, floors, ventilation equipment, and clothing. Increased levels of radon have been identified in every state.

## HOW DOES RADON ENTER THE HOUSE?

Radon typically moves up through the ground to the air above and into your home through cracks and other holes in the foundation. Your home traps radon inside, where it can build up. Regardless of the home's age, you may have a radon problem.

## WHEN IS RADON A CONCERN?

Generally, when radon is released from the ground it is diluted by fresh air, creating concentrations too low to be of concern. However, there is concern when radon enters enclosed spaces, either directly into house or through the basement, and reaches concentrations high enough to pose a health risk.

Air leakage control minimizes the risk of soil gas/radon entry.

## WHY IS RADON A CONCERN?

Radon is estimated to cause many thousands of deaths each year in the United States. That's because when you breathe air containing radon, you are at greater risk of lung cancer. The U.S. Environmental Protection Agency estimates that indoor radon exposure may result in 21,000 lung cancer deaths annually in the United States. In fact, the Surgeon General has warned that radon is the second leading cause of lung cancer.

Radon may be second only to smoking as a cause of lung cancer. People can be exposed to radon primarily from breathing radon in air that comes through cracks and gaps in buildings and homes. Because radon comes naturally from the earth, people can always be exposed to it.

**WALLTITE® closed-cell spray foam, as part of an air barrier system, can reduce the risk of soil gas/radon entry.**

**WALLTITE® Series in North America is the first low global warming potential (HFO-based) spray foam that has been tested to control radon.**

**WALLTITE® provides insulation to both the foundation wall and under the floor slab.**

**WALLTITE® applied to basement walls can help control entry of radon/soil gases.**

**WALLTITE® under slab can help control entry of radon/soil gases.**

## RADON GAS AND THE INTERNATIONAL RESIDENTIAL CODE (IRC)

Some states and local jurisdictions have adopted building codes requiring installation of a radon resistant feature. The International Residential Code contains an appendix of radon-resistant construction requirements. The appendix is voluntary unless stated that it needs to be adopted with the code. Appendix F in the International Residential Code contains provisions that are intended to mitigate the transfer of radon gases from the soil into dwelling units.

## ADDRESSING RADON GAS

- There is no identified safe level of radon exposure, however EPA has identified the radon level equal or above 4 picocuries per liter (pCi/L) requires immediate measures.
- Radon levels should be reduced to lower levels as soon as possible using recommended radon control methods.
- Construction of new dwellings should employ techniques that will minimize radon entry and facilitate post-construction radon removal, should this subsequently prove necessary.

## UNDERSTANDING THE CODES

There are variations in the requirements established by each State, municipality or authority having jurisdiction (AHJ) regarding the mitigation and control of soil gases including radon.

Certain municipalities may have specific Radon/Soil Gas Mitigation Programs that specify what measures are to be used. It is important for you to know and comply with the regulations required in your area.