# The Proper Way to Encapsulate a Crawlspace

Crawl space encapsulation refers to the process of dividing the area below your home from your actual living space, or building envelope. When done correctly, it prevents the passage of air from the crawl space to your living environment and creates healthier living conditions. Crawl spaces should be designed and constructed as mini-basements. They should have their floors uninsulated, the ground vapor sealed, their walls insulated and air sealed, and their air dehumidified.

Traditional vented crawl spaces are often damp, moldy and inhabited with pests. They also tend to have small air leaks. To ensure both durability and indoor air quality, see the steps below to convert a crawl space to a sealed insulated space.



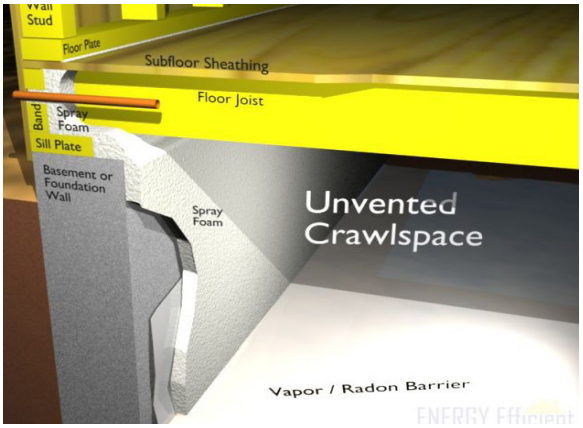
## Steps to Convert a Crawlspace to a Sealed Insulated Space

**1. Check for excessive moisture:** Some crawl spaces aren't ready for encapsulation. Before you opt to encapsulate, make sure you don't have any standing water, mold growth, inadequate drainage, or backdrafting from combustion appliances. Interior footer drains and sump pump(s) may need to be added.

**2. Install a Vapor Barrier over the Ground:** Seal off the ground to prevent moisture and any harmful gases, such as radon, from entering the crawlspace through the soil. To do this, add a minimum 10-mil vapor barrier to the ground with sealed seams. Attach to walls with foam or fasteners.

**3. Seal & Insulate the Foundation Wall:** Seal off all vents and openings to the outdoors. Add closed cell insulation to the crawl space walls. Closed cell foam will both seal and insulate the foundation walls. In addition, using spray foam insulation on crawl spaces walls can help limit vapor drive through the block, brick or framed walls. Termite viewing strips must be left.

**4. Seal & Insulate Rim Joists:** Seal off all remaining gaps and cracks with closed cell foam: Band joists, AC drain line runs, plumbing penetrations, wiring, etc. Make sure all gaps are sealed between the crawl space and the floor of your home.




## Benefits of using SPF in Unvented Crawlspaces

- SPF saves energy by reducing air leakage into or out of your crawlspace. A sealed and insulated crawl space will remain at a much closer temperature to the inside of your house.
- SPF lowers the chance of freezing pipes - A sealed and insulated crawlspace will keep a higher temperature in the winter thus lowering the chance of frozen pipes.
- SPF lowers humidity - Sealing the ground and eliminating the foundation vents removes the most common sources of moisture entry into the crawlspace.