DOW®

GREAT STUFF™

Improve Comfort. Lower Energy Costs with GREAT STUFF™ Insulating Foam Sealants.

Air-Seal Audit Checklist

United States | Canada I Residential

Air leaks account for 25–40%* of the energy used for heating and cooling a typical home. According to the Residential Energy Services Network (RESNET), proper insulating and air sealing can help lower heating and cooling costs by up to 30%.

Now you can take on a few easy DIY projects this weekend to see immediate savings while making your home more comfortable and environmentally friendly for the long term.

COMPLETE CHECKLIST

Attic

- ☐ Attic hatch frame (outer perimeter)
- ☐ Plumbing stacks and shafts
- ☐ Gas lines
- ☐ HVAC penetrations
- ☐ Electrical and cable lines
- ☐ TV connections
- ☐ Look for dirty insulation, which can indicate air infiltration

Basement

- ☐ Sill plate
- ☐ Rim joist
- ☐ Floor wall junction
- ☐ Headers
- ☐ Gas lines
- ☐ PVC pipe penetrations (water and waste)
- ☐ HVAC duct penetrations
- ☐ Window and door frames without trim (use Window & Door formula)
- ☐ Around the perimeter of wire and conduit penetrations from exterior of house
- ☐ Cable TV lines
- ☐ Central vac system piping

Living Space

- ☐ Under baseboards
- ☐ Gas line penetrations
- ☐ Window and door frames (during installation with Window & Door formula)
- ☐ Around perimeter of electrical outlets (not inside box)
- ☐ Plumbing penetrations
- ☐ Around the perimeter of covered wire and electrical conduit penetrations on exterior walls
- ☐ Air/heating vents
- ☐ Central vac system piping

House Exterior

- ☐ Electric, gas, cable and A/C penetrations
- ☐ Vent hoods
- ☐ Exterior garage walls
- ☐ Outside water faucet
- ☐ Dryer vent
- ☐ Cooling line from A/C condenser (outside on a concrete pad) and heat pump penetration into house

THE ATTIC

What's hotter than the outdoors on a sunny summer day? Your attic.
Keep the heat out of your living space with GREAT STUFF™ Insulating Foam Sealants.

Attic Hatch

While the insulation in your attic may have an acceptable R-value**, the attic hatch door system is often the weakest link in the attic insulation. To help keep the conditioned air in the living space from escaping through the attic, air seal the gap between the attic hatch door frame and the ceiling joists

1. Pick a day when the attic temperature is bearable.
2. Remove loose pieces of insulation in the gap before foaming.
3. Place the GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant straw in the gap and start foaming. Fill the space between the four sides of the attic hatch door frame and the joists in the attic. Do not overfill.

HVAC

If you have ducts in the attic, use GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant to seal around all of the HVAC boots where they penetrate the drywall into the living space below. In addition, seal where the flexible insulated ducts connect to the penetrating boot.

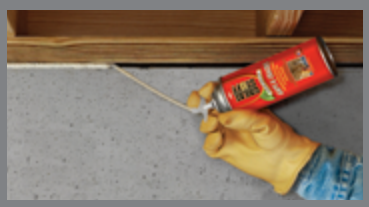
*www.energystar.gov
** R means resistance to heat flow. The higher the R-value, the gr eater the insulating power.

BASEMENT or closed crawl space

It's damp, dark and cold. That's why it's an excellent place to seal with GREAT STUFF™ Insulating Foam Sealants.

Sill Plate

You are likely to have a gap in your basement where the sill plate rests on the top of the concrete foundation. If you have an unfinished basement, these gaps will be evident. If you have a finished basement with a dropped ceiling, you may still be able to remove the ceiling tiles to access the sill plate and the foundation.



1. Using GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant, insert the straw into the gap and slowly fill the void.
2. Continue to move the can as you foam.

Rim Joist

The rim joist caps the end of the floor joists, forming a box. This is the area where the siding typically ends, which is why it is a primary source of air infiltration into the house. To identify the rim joist, look up to where the basement wall meets the basement ceiling. The rim joist may already be insulated with fiberglass batt insulation, or it may not be insulated at all. In either case, the rim joist should be air sealed and insulated with GREAT STUFF™ Gaps & Cracks.

A recent study conducted by Dow revealed that, by sealing the sill plate/rim joist penetrations, homeowners can begin to see, on average, pay back after 9.4 months and $44 in annual savings.*

1. Use a ladder to investigate what the area looks like at the end of each floor joist. Remove any existing insulation from the rim joist area.
2. If batt insulation will be used at the rim joist, use GREAT STUFF™ Gaps & Cracks to seal the four intersecting edges of each rim joist "box."
3. A better insulation option is to cut pieces of foam board, such as STYROFOAM™ Brand Extruded Polystyrene (XPS) Foam Insulation up to 2 inches thick or THERMAX™ Insulation up to 4 inches thick, to fit in each rim joist "box." In the U.S., STYROFOAM™ and THERMAX™ thicknesses greater than 2 inches and 4 inches respectively, require a thermal barrier over the exposed insulation. In Canada, ALL exposed foam requires a thermal barrier unless there is a finished ceiling. After installing the foam board, use GREAT STUFF™ Gaps & Cracks to seal around the four edges of the foam board.
4. Seal around all wires and pipes that penetrate the rim joist.

HVAC

Your air conditioning system setup might be doing more than just cooling your house. It might be an air-infiltration culprit.

1. Check the areas where the HVAC ducts enter your living space. Typically, these ducts extend from the basement up through the first floor.
2. Cover your basement floor before foaming.
3. Seal around all duct penetrations. Position your ladder so that you are not foaming directly above your head.

Main Electrical Panel

It's the hub of all electricity in the house and a large distributor of unwanted airflow.

Note: GREAT STUFF™ Insulating Foam Sealants are combustible, so it's very important that all electrical switches are turned off before starting your project. Also, never apply foam to exposed wire or inside an electrical box. Be sure that wires have a protective covering before applying.

1. Be sure to turn off the main electrical switch.
2. Stand in front of the main electrical panel and trace, starting at the top of the panel, and follow the covered wires until the main electrical supply enters the main floor of the house. Be sure that wiring is run through a pipe or a protective covering before applying foam.
3. Air seal around the entry hole to the main floor with GREAT STUFF™ Fireblock Insulating Foam Sealant.

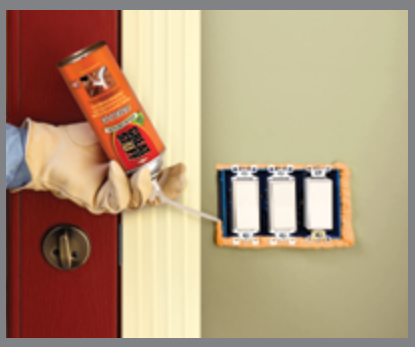
* In this study, conducted by Dow and D.R. Nelson & Associates. air loss was measured using blower door tests. Potential energy savings were estimated using REM Home Energy Analysis Software. Results vary based on construction, style, year built and other unique home characteristics.

LIVING SPACE

It's where you eat, sleep and hang out so don't neglect the most important place in your house. Make sure to fill the gaps and cracks in your living space.

Electrical Outlets

You have holes all over your house; they just may be hiding under electrical outlet covers.



1. Turn off the main electrical switch for the area of the home you will be air sealing. Be sure that all wires have a protective covering before applying.
2. Use a screwdriver to remove all cover plates on perimeter walls.
3. Homes have holes cut in the drywall or plaster for electrical outlets. Check for gaps between the wall and the metal or plastic box that houses the electrical socket.
4. Fill the gap around the perimeter of the electrical box. Do not use GREAT STUFF™ Insulating Foam Sealant anywhere inside the box.
5. Allow the foam to cure before trimming (usually takes up to 1 hour). Cure time is dependant on temperature, relative humidity and size of foam bead. Trim excess foam with a serrated blade so that the foam is flush with the wall.
6. For an air-tight electrical outlet seal, also utilize a foam gasket. Foam gaskets are readily available at hardware stores. Simply place the gasket over the front of the outlet.
7. Replace cover plates.

Window & Doors

Seal the gap around windows & doors and their rough openings to block drafts.

1. Using GREAT STUFF™ Window & Door Insulating Foam Sealant, insert the straw into the gap and fill around the window or door and its rough opening.
2. The low-pressure formula expands to insulate around windows and doors without bending the frame.

Plumbing

While plumbing pipes may be hidden behind or under the sink, it doesn't mean that the pipe penetrations aren't allowing bugs and unwanted air into your house.

1. Check for holes under sinks where the pipes enter from the floor or wall in all rooms that have running water (kitchen, bathroom, utility room and laundry room).
2. Use GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant around the pipes at the wall or floor entrance.

A recent study conducted by Dow revealed that, by sealing plumbing penetrations, homeowners can begin to see payback after .5 months, and enjoy begin to see, on average, pay back after .5 months and $45 in annual savings.*

*In this study, conducted by Dow and D.R. Nelson & Associates, air loss was measured using blower door tests. Potential energy savings were estimated using REM Home Energy Analysis Software. Results vary based on construction, style, year built and other unique home characteristics.

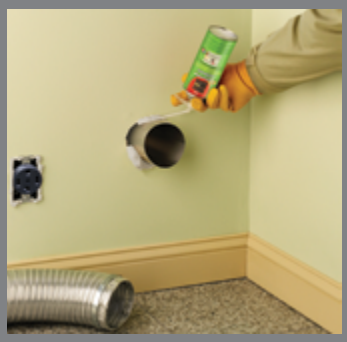
HOUSE EXTERIOR

Your home's exterior may be surrounded by wilderness; that doesn't mean you have to invite the flora and fauna inside. Use GREAT STUFF™ Insulating Foam Sealants to help keep the outside on the outside of your home.

Hose Bib

Convenient for car washes and lawn care, the hose bib not only lets water out, but may be letting air or pests in.

1. If there is enough space for your pinky finger to fit behind the water spout on the exterior of your house, you should use GREAT STUFF™ Pestblock Insulating Foam Sealants.
2. Place the can's straw in the space around the pipe and fill the entire way around the spout.
3. The foam can be trimmed with a serrated blade when the foam has cured. Paint all foam exposed to the exterior to help protect the foam from sunlight.

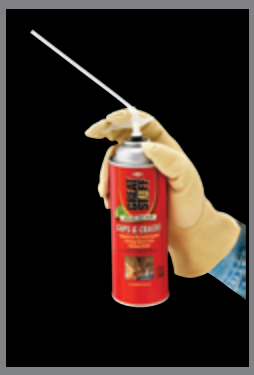


Dryer Vent

Don't let clean laundry be the cause for high energy bills.

1. Seal the gap around the dryer vent where it exits the house. This hole can be sealed on the inside or outside, whichever is more accessible. This will help keep unconditioned air and bugs from entering your house.
2. Insert the GREAT STUFF™ Pestblock Insulating Foam Sealant straw inside the gap and apply foam around the entire circumference.

General Tips About GREAT STUFF™ Insulating Foam Sealants



- Read the can label carefully before using for full instructions and safety precautions.
- Cover all skin.
- Wear safety goggles and gloves when foaming.
- Eliminate all sources of ignition before use, including pilot lights.
- Provide adequate ventilation or wear proper respiratory protection.
- Contents under pressure. Not to be used for filling closed cavities or voids such as behind walls and under tub surrounds.
- When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C).
- When air sealing buildings, ensure that combustion appliances, such as furnaces, water heaters, wood burning stoves, gas stoves and gas dryers are properly vented to the outside.
- GREAT STUFF™ Insulating Foam Sealants are available in different formulas: Gaps & Cracks, Big Gap Filler, Window & Door, Pestblock, and Fireblock. Find the one that is right for your project. Ensure that you are using the appropriate foam around electrical and plumbing penetrations per local building code.
- The full cure time is 8 hours. To expedite curing, spritz the area with water before and after foaming.
- Do not overfill cavity. But if you do, foam can easily be trimmed with a serrated blade or utility knife once it has fully cured.

Greatness comes in many forms

Did you know that the average home has a 1/2 mile of gaps and cracks? Seal them all with GREAT STUFF™.**

Each GREAT STUFF™ Insulating Foam Sealant* is specially formulated to seal gaps, cracks and holes to block air, moisture and even pests. Our comprehensive line of ready to use sealants is a simple inexpensive money-saving solution for any do-it-yourself homeowner.

- **GREAT STUFF™ Gaps & Cracks*** — Foam sealant that expands to seal and insulate gaps up to one inch.
- **GREAT STUFF™ Window & Door*** — Minimally expanding foam that seals between a window or door and its rough opening.
- **GREAT STUFF™ Fireblock*** — Impedes spread of fire and smoke through service penetrations.***
- **GREAT STUFF™ Big Gap Filler*** — Foam sealant that expands to seal and insulate gaps up to three inches.
- **GREAT STUFF™ Pestblock*** — Blocks pests out of the home by eliminating points of entry.

*Read all the instructions and (Material) Safety Data Sheets (M)SDS carefully before use.

**www.energystar.gov

*** Intended for use in residential application to maintain the continuity of an approved fire block material.

In the United States
The Dow Chemical Company
Dow Building Solutions
200 Larkin Center
Midland, MI 48674

In Canada
Dow Chemical Canada ULC.
Dow Building Solutions
2400, 215 – 2 Street S.W.,
Calgary, AB T2P 5H1

For Technical Information:
1-866-583-BLUE (2583) (English)
1-866-363-6210 (French)

For Sales Information:
1-800-232-2436 (English)
1-800-565-1255 (French)

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www.dowbuildingsolutions.com

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Dow Polyurethane Foam Insulation and Sealants
CAUTION: When cured, these products are combustible and will burn if exposed to open flame or sparks from highenergy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult (Material) Safety Data Sheet ((M)SDS), call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada. When air sealing buildings, ensure that combustion appliances, such as furnaces, water heaters, wood burning stoves, gas stoves and gas dryers are properly vented to the outside. See website: http://www.epa.gov/iaq/homes/hip-ventilation.html. In Canada visit http://archive.nrccnrc.gc.ca/eng/ibp/irc/bsi/83-house-ventilation.html.

GREAT STUFF™, GREAT STUFF PRO™, ENERFOAM™ and ENERBOND™ Insulating Foam sealant and adhesive products contain isocyanate and a flammable blowing agent. Read all instructions and (Material) Safety Data Sheet ((M)SDS), carefully before use. Eliminate all sources of ignition before use. Cover all skin. Wear long sleeves, gloves, and safety glasses or goggles. Not for use in aviation, or food/beverage contact, or as structural support in marine applications. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure. Not to be used for filling closed cavities or voids such as behind walls and under tub surrounds; this improper use of the product could result in the accumulation of flammable vapors and/or uncured material. Failure to follow the warnings and instructions provided with the product, and/or all applicable rules and regulations, can result in injury or death.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including Dow can give assurance that mold will not develop in any specific system.

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