



Reducing energy loss through draft proofing

Draft proofing is controlling the air-leakage by limiting the amount of air that flows in and out of a house. It is important not to limit the airflow too much because there should always be a bit of air exchange occurring to ensure that the air is safe and healthy. The small cracks and holes combined in a home can be comparable to leaving a door open all year long. There are a few places that you should check for these problems. Windows, electrical outlets, and doors are all good places to check. Fuel burning appliances require air for diluting and exhausting the products of combustion out of the home. It is vitally important that there be enough air, otherwise a chimney or flue could back draft or cause dangerous gases to be released into the home. It is also important that when sealing or repairing leaks you do not completely limit air from coming in because it could cause structural damage and long-term health problems.

#### Products used for Draft proofing

Sealants are good for smaller leaks around doors or windows. You must make sure to use the sealant appropriate for the surface you are applying it to.

*Acoustical Sealant* is excellent for sealing joints in polyethylene and vapour barriers. It should only be used where it is sandwiched between two materials.

*Acrylic latex* is a water based blend sealant that works well on non-porous surfaces. *Butyl rubber* will bond to most surfaces and is a synthetic rubber sealant.

*Silicone sealant* is adhesive to most surfaces but requires primer for wood, steel, or anodized aluminium. *Polysulfide sealant* when used with a primer is ideal for concrete surfaces such as stone or masonry. *Urethane foam sealant* is available in a dispensing system or aerosol spray can with different expansion rates depending on the ingredients. It should not be used on window headers since it can transfer structural loads if the walls settle.





*Gaskets* have been developed where caulking is not your best option. Sill plate gaskets are polyethylene foam strips that can be installed between the foundation and sill plated during the construction. *Electrical outlet and lighting fixture gaskets* are to be placed behind cover plates of electrical receptacles, switches and lighting mounts. *Neoprene gaskets* are quite durable and are very flexible. They are mostly used where there is expected movement, such as on plumbing stacks.

Weather Stripping is designed to block air leakage around doors and the seals where the windows open. Weather stripping is effective when there is no longer a gap and the air no longer gets through. Compression Strips are used where there is pressure stress such as the bottom of a vertical sliding window. There are a few different types of Compression Strips. *Closed cell foam* is adhesive backed foam stripping, which is available in rolls so that it is easier to install. *Ribbed closed cell rubber* is good for irregular surfaces but is not good for long or varied gap widths. It is also an adhesive backed stripping and is sold in rolls as well. *Tubular stripping* either comes with its own adhesive backing or an attachment strip of a different material. There is a rubber and a plastic type and the rubber type tends to be more durable. This stripping is generally used for windows or doors and is often installed with nails, staples or screws depending on the attachment strip that is being used. Another option is tension strips. Some types of tension stripping include; spring vinyl and spring metal. Spring Vinyl can be used for the same applications as compression strips and is adhesive backed with a good durability measurement. Spring Metal is generally used for doors and under a light amount of compression.

### Combination Types

Combination stripping types include spring-loaded/self-adjusting weather stripping and magnetic strip systems. Spring loaded/Self-adjusting weather stripping uses a spring mechanism that allows it to adapt to unequal distances from the weather strip to the door or window. Magnetic strip systems are mounted on a door or window frame and a metal strip is mounted on the door or window which provides the seal when the two strips are in contact.

