

# HOW TO OPERATE YOUR HOME

So you own a home—and you're not sure what to do next?  
Here's your operating instructions!



## EXTERIOR CAULKING:

### Seal it up the right way

Sealing up our homes is a constant battle. We want to stop air leaks, keep insects out, save energy and prevent water intrusion. Caulk is often the weapon of choice. It looks simple, but proper caulk use isn't really simple. We need to understand how caulk performs, where to apply caulk, and the type of caulk to use.

Caulk is designed to fill gaps between building materials to seal against air movement. Caulk can also improve appearance. In most situations, caulk is not the cure for water leaks. It certainly can help in the battle against water leaks, but proper design and installation of building products is the key to a watertight structure.

So how does caulk work? It is designed to be easy to apply, fill voids, and never fully harden. Caulk remains flexible so it can move with building material expansion and contraction. To perform properly, caulk needs to be applied the right way.

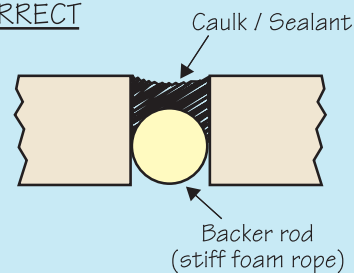
Take a look at the illustration. Notice how caulk assumes an hourglass shape when viewed in a cross-section. This allows the caulk to expand and contract in its thinner middle while its wider edges adhere to the surfaces. The caulk is not adhered to three surfaces; it does not adhere to the backer rod. In the example, the wide gap requires a foam "backer rod" to fill the gap and support the caulk.

Use a foam backer rod for gaps wider than 3/8 inch. The dense foam backer rod can be purchased in various diameters, just like rope. Select a backer rod that is slightly wider than the joint. Friction holds it in place. Push the backer rod into the gap so the caulk assumes an hourglass shape with a thinner cross-section. If the gap you must fill is wider than 3/4 inch, caulk will not function properly, even with a backer rod.

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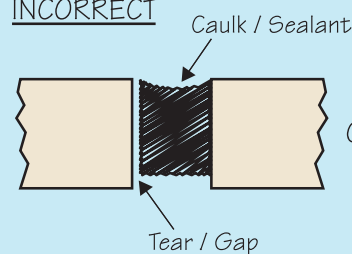
### Caulking Techniques

CORRECT



Height to width ratio 1:2

INCORRECT



Poor technique:  
Caulk tears and does not stretch with movement

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Featured in this issue:

**EXTERIOR CAULKING**

**RESTORING PLASTIC LAMINATE**

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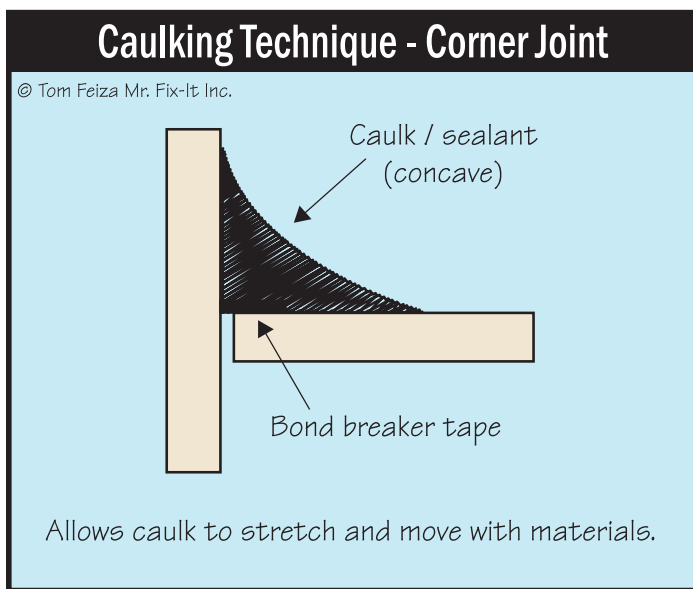
This newsletter contains basic information on homes not wholly applicable to every situation. Seek professional advice prior to acting on information contained herein. To reprint any article, please contact our office.

## Caulk (continued)

Can you use caulk without the backer rod? Sure. This is done all the time, and it can be successful because the newer caulks remain so flexible and often you are filling a smaller gap. However, with a wide gap, always use a backer

rod. Take a look around your home – you will see where caulk is pulled from one surface because of expansion and contraction after initial adhesion to three surfaces.

For corner joints that are filled with caulk, take a look at illustration. For a wider joint, a bond breaker tape limits the contact area and gives caulk a chance to move and stretch. Is this done in residential construction? Rarely, but it is the correct technique for wider joints.



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Where do you apply caulk? There is no simple answer. You need to understand construction and building materials. You should caulk where aluminum, wood and fiber cement siding meets corners, trim, windows and doors. Use caulk to fill small gaps and holes in wood before painting. Caulk can be used to fill gaps around penetrations, such as the pipe at a hose bib. Try to think about

where wind, rain and insects may want to enter your home, and caulk there.

Caulk can also improve the appearance of your home's exterior by filling those ugly gaps on painted surfaces. Decorative wood trim may have gaps and cracks that will disappear with caulk and paint.

Don't caulk at the window flashing – that little metal "cap" is designed to move water from behind the siding to the exterior. Don't caulk at the angular steel bars or lintels over windows in a brick wall – they also need to drain water. Don't caulk the ends of vinyl siding – the siding needs to expand and contract with temperature changes.

Which caulk to choose? Tough question. For most exterior applications, you can depend on two basic types of caulk – an acrylic or a urethane / polyurethane. The acrylic or acrylic latex caulk is smooth, and it's easy to apply and clean up with water. In most applications, you can successfully paint over it. Because it is acrylic, you don't need to be a pro for a good application, and you can wipe the joints with a wet finger for the best appearance. These caulks may also be fortified, siliconized, unionized, unisexed, and improved. Read the label, make sure it can be painted, and buy the higher-priced caulk from a manufacturer you recognize.

For high performance, use a urethane or polyurethane caulk. These caulks remain more flexible and will adhere to almost anything. In fact, the stickiness of these caulks makes application difficult for the amateur. Buy a high-quality product and use a color that matches your need. You must learn how to apply a beautiful bead the first time, because wiping or moving the caulk around once it is applied is not a good option. You must use solvents for cleanup, so don't make a mess.

Finally, buy a good caulk gun. Spend a few extra bucks for a dripless caulk gun that stops the flow of caulk when you release the trigger. The Dripless brand caulk gun is a good option. I know you don't believe me on this one, but try a Dripless – it automatically stops the flow of caulk.

### Mr. Fix-It Quick Tip

## RESTORING PLASTIC LAMINATE



It is impossible to fully restore the color of plastic laminate (such as Formica) and eliminate scratches from its surface, because the properties that make it durable also make it impossible to repair. But you can clean and polish it with a product like Gell Gloss, which has a fine abrasive and solvent base. Spread on a light coat and wait until it dries to a powdery residue, then buff with a clean cloth. This will leave a nice gloss and a protective finish that masks scratches.

## The Honey-Do List – Tom and Gayle Feiza

# THE BREEZY FURNACE AND ONE COLD ROOM

Gayle: There must be something wrong with our new furnace. The air coming out of the grills feels cool, even drafty.

Tom: It's only because we're used to our older furnace. This new high-efficiency gas furnace works differently. It converts as much as 95 percent of gas energy into heat. Our old furnace was much less efficient – maybe as little as 60 percent efficient.

Gayle: If the new one is so efficient, how come the air feels colder?

Tom: The increase in efficiency means the newer furnace can't heat air to a high temperature like the old one did. Also, for even better efficiency, newer furnaces are designed to move more air across the heat exchanger surface. The draft you feel is this cooler air discharging at a greater speed from the supply duct grills.

Gayle: It's nice to know we're being so fuel-efficient, but I'm still shivering.

Tom: I could install some plastic deflectors on the grills to redirect the air flow. When the air isn't blowing across your skin anymore, you won't feel a draft. If that isn't enough, I'll ask the contractor to check whether the furnace is set up properly and whether the fan speed is correct. And maybe we should lower the flow to one particular register. Have you noticed whether the draft is mostly at one register?

Gayle: No, but I'll try to watch for that in the next couple of days.

Tom: The nice thing is, since the furnace uses so much less energy, we can afford to set the thermostat higher.

Gayle: Now that's more like it. Let's crank it up! But I bet my sewing room is still going to be a walk-in freezer. That room is always so much colder than the rest of the house.

Tom: Let's check the heating supply duct to that room. It should be fully open, but we'll make sure. We need to go into the basement and look at the main warm-air supply duct that originates directly above the furnace. See the rectangular duct running down the center of the basement?

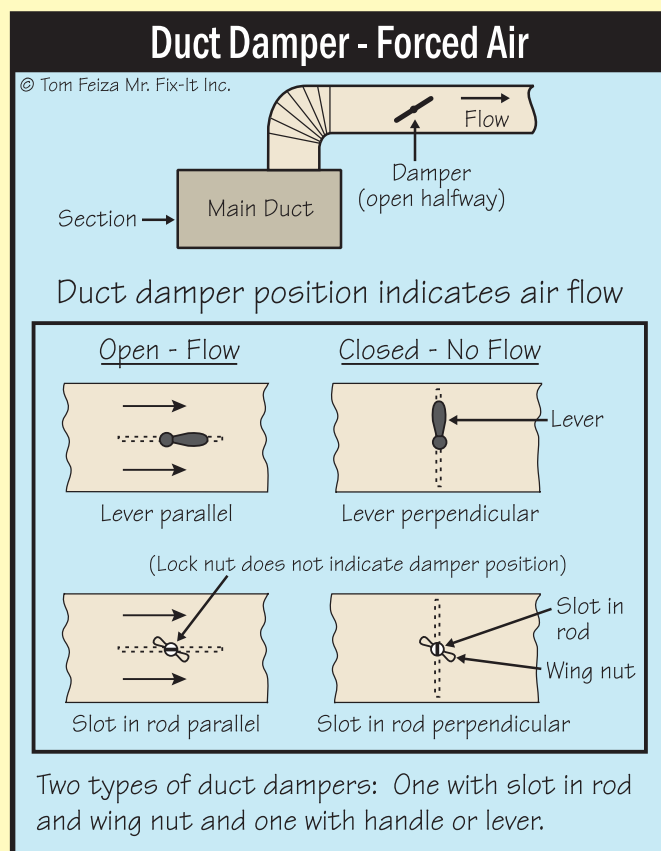
That's the main duct. It branches off into smaller circular ducts that service registers for each room. Here's the circular duct for your sewing room. Here, where the round duct attaches to the rectangular main, we're checking this duct damper.

Gayle: All I see is a wing nut.

Tom: That's right. The damper is inside the duct, and the wing nut fastens to the damper by way of this threaded rod. In the center of the rod is a screwdriver slot. The slot is perpendicular to the duct, which means the damper is closed. Here, I'll loosen the wing nut and reposition the damper so that the slot is parallel to the duct. Now the damper is open. We secure it by retightening the wing nut.

Gayle: Now my sewing room will be cozy again.

*Tom Feiza, "Mr. Fix-It," is a professional home-improvement expert. His wife, Gayle, keeps track of the couple's lengthy to-do list.*



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