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DIY: Making an Air Tight Attic Hatch

Difficulty: Intermediate

Cost: <$40

Time: 1 hour

Materials:
- weatherstripping
- caulk gun
- rigid foam board
- plywood
- utility knife
- tape measure
- expanding foam spray
- nails
- construction adhesive

Safety Equipment:
Gloves
Eye protection

Additional Info
- There are many types of caulk available for sealing and insulation of different materials. Consult a guide or knowledgeable person to ensure you are using the correct type.
- Without proper insulation attic hatches can allow transfer of heat between your attic and the rest of your house. This reduces efficiency and uses more energy.

Image taken from "Attic Access" Technology Fact Sheet

Safety Precaution: Utility knives are extremely sharp and care should be taken when using one.

Before You Start: This guide does not apply to attics with pull down stair openings

1. Measure the attic hatch opening and cut a piece of plywood large enough to fit this opening and make contact with the trim all the way around. If you do not have a table saw or circular saw many hardware stores will cut a sheet of plywood to your specifications.
2. Measure and cut rigid foam board to fit on top of the plywood hatch with ¼ inch to spare on each side. To cut foam board, score it along one side then snap it.
3. Your foam board will have a specific R-value. You want to achieve an R-value for your attic hatch that's similar to the rest of your attic. To achieve this you may need to stack multiple layers of foam board (adding the R-value of each additional layer). If you do not know your attic's R-value, at least 6-8 inches of foam board should be used.
4. Using foam-compatible caulk apply beads of caulk on the attic side of the plywood hatch. Center and firmly press down on the first layer of foam board to ensure a good seal. Repeat for each layer of foam board and allow it to dry.
5. On the inside of your attic access hole apply the appropriate caulk to any cracks that might allow air to flow past the attic hatch. Wipe off any excess that might prevent the attic hatch from sitting evenly on the trim.
6. Apply weatherstripping to the trim where the attic hatch will rest. Use enough weatherstripping to make good contact at the corners and along the sides. Many people choose to install a handle and latch to their attic hatch at this point to ensure a snug fit between the hatch and weatherstripping.
7. To make a box for the attic hatch, measure a piece of foam that will sit on the wood frame (that the attic hatch sits in) such that the box will sit flush with the top of the attic hatch. You will want an attic hatch that is about 2-4 inches thick.
8. Use a utility knife to cut the foam board so it will sit on the frame without any large gaps.
9. Apply a layer of construction adhesive to the bottom of the foam board pieces (where they meet the framing) and where the foam board pieces meet each other.
10. Insert nails in to the corners of the box to hold the foam board pieces in place while the adhesive dries.
11. Once the adhesive has set, fill in the cracks with expanding foam spray. If the dried expanding foam prevents the attic hatch from opening smoothly, trim the expanding foam in those areas with a utility knife.

Source: http://blog.sls-construction.com/2011/air-sealing-the-attic-hatch