

Simple Home Repairs — Flat Roofs

Patricia Klobe

Department of Environmental Design, University of Missouri-Columbia

Flat roofs that need repair may have:

- A loose seam or edge of an overlapping felt.
- Cracks or damage appear in the roofing.
- A blister in the felt.

To repair them, you will need:

- Sheet or asphalt roofing felt
- Asphalt roofing cement
- Hammer and roofing nails
- Putty knife
- Utility knife
- Paint brush

Procedure

Locate the leak as closely as possible from inside. Place and secure the ladder, then examine the condition of the roof from the outside.

Loose felt edges

Using a brush, clean out any dirt that may have blown under the loose felt. Using broad-head roofing nails, nail loose felt in place. Start nailing away from the felt edge and work toward the edge to prevent making a blister in the felt. Place the nails 1/2 to 1 inch apart.

After the felt is nailed in place, cover the patched area with asphalt cement. Make sure the cement extends 1 to 1-1/2 inches beyond the repair area.

Blisters in the felt

Cut the blister with a knife. Fill the area with asphalt cement as if filling a crack. Continue, using the repair procedures for cracks. (See steps 2 and 3 below.)

Cracks in the roofing

- Clean out the crack and the surrounding area.
- Place a thin layer of asphalt cement over the crack with a brush or putty knife. The cement should completely cover the cleaned area around the crack.
- Cut a piece of roofing felt a little larger than the crack. Place it over the cement and press it firmly in place. Nail all four edges on the felt piece, spacing the nails 1 to 1-1/2 inches apart. Spread another layer of cement over the felt piece. Make sure the cement extends to 1 to 1-1/2 inches beyond all edges of the felt piece.

Deteriorated or damaged roofing

This condition is difficult to repair. Never build up or cover the old or damaged roofing with a series of felt layers. This may change the drainage pattern of the roof and create more problems.

Remove damaged roofing. Clean the surfaces in and around the cut-out area.

Now cut pieces of felt to neatly fit the cut-out area. The number of felt strips placed should equal the number of layers of felt removed. Cut the top patch 2 to 3 inches larger so that it will overlap the cut-out area on all sides.

Spread a thin layer of asphalt cement over the cut-out area. Then take the first felt strip, place it in the damaged area and press it firmly into place. Now spread a thin layer of cement over the strip. Next, firmly press down a second felt strip. Continue placing strips this way until the cut-out area is level with the original roofing.

After the cut-out area has been built up to its original level, spread a thin layer of cement over the cut-out area. Spread the cement so that it extends 3 to 4 inches beyond all edges of the area.

Place the oversized felt strip over the cement and press it firmly in place. Nail the strip on all four edges with broad-head roofing nails, and then cover with cement, making sure that the cement extends 1 to 1-1/2 inches beyond all edges.

MU publication [GH5942](#), *Simple Home Repairs — Shingle Roofs*, may also be of interest if repairing a roof other than a flat one.

*This guide was reprinted from the United States Department of Agriculture publication,
Program Aid No. 1193, Extension Service.*

University of Missouri. Published by University Extension, University of Missouri-Columbia. Issued in furtherance of Cooperative Extension Work Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. Ronald J. Turner, Director, Cooperative Extension Service, University of Missouri and Lincoln University, Columbia, Missouri 65211. • University Extension does not discriminate on the basis of race, color, national origin, sex, religion, age, disability or status as a Vietnam-era veteran in employment or programs. If you have special needs as addressed by the Americans with Disabilities Act and need this publication in an alternative format, write ADA Officer, Extension and Agricultural Information, 1-98 Agriculture Building, Columbia, MO 65211, or call (573) 882-7216. Reasonable efforts will be made to accommodate your special needs.