Our Roofing Guide

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What are the options?

Asphalt shingles used on an overwhelming share of the U.S. residential roofs—can be reinforced with fiberglass materials. Fiberglass-reinforced products are more durable and dominate the market.
Fiberglass shingles have a fiberglass mat, top-and-bottom layers of asphalt and mineral granules. They are available in architectural grades and a variety of colors that offer a textured appearance.
Wood shingles and shakes are typically made from cedar, redwood, and southern pine. Shingles are machine-sawn; shakes are hand-hewn and rougher looking. Their natural look is popular but brush fire concerns limit their use.

Tile - clay or concrete - is a durable and fairly expensive roofing material. "Mission-style" and "Spanish" round-topped tiles are widely used as are flat styles that create French and English looks. Tile is available in a variety of colors and finishes. Note: Tile is heavy. If you are replacing another type of roof system with tile, you will need to verify that the structure will support the load.

Slate is quarried and applied mostly in the northeast and comes in different colors and grades. Considered virtually indestructible, it is, however, more expensive than other roofing materials.

Synthetic roof products simulate various types of traditional roof coverings, such as slate and wood shingles and shakes. A point to consider: Although synthetic roof products may simulate the appearance of traditional roof coverings, they do not necessarily have the same properties.

All roof systems have five basic components:

1. **Structure:** the rafters and trusses that support the sheathing.
2. **Deck/sheathing:** the boards or sheet material that are fastened to the roof rafters to cover a house.
3. **Underlayment:** a sheet of asphalt-saturated material used as a secondary layer of protection for the roof deck.
4. **Roof covering:** shingles, tiles, etc., that protect the sheathing from weather.
5. **Drainage:** the features of the roof system's design, such as shape, slope, layout, etc., that affect its ability to shed water.
6. **Flashing:** sheet metal or other material laid into the various joints and valleys of a roof system to prevent water seepage.

Ventilation is Key

One of the most critical factors in roof system durability is proper ventilation. Without it, heat and moisture buildup in the attic area combine to cause rafters and sheathing to rot, roof shingles to buckle, and insulation to lose its effectiveness.
It is important never to block sources of roof ventilation, such as louvers, ridge vents, or soffit vents. Proper attic ventilation will help prevent structural damage, increase the life of the roofing material and reduce energy consumption.

In addition to the free flow of air, insulation plays a key role in proper attic ventilation. An ideal attic has:

- A gap-free layer of insulation to protect again heat gain or loss.
- A vapor retarder under the insulation to stop moisture from rising into the attic.
- Enough vented spaces properly allow air to pass in and out freely.
- A minimum of 1 inch between the insulation and roof sheathing.

Roof Enemies

Sun: Heat and ultraviolet rays cause roofing materials to deteriorate over time.
Rain: When underneath roofing, water can work its way to the deck and begin to cause rot.
Wind: High winds can lift the roof edges and force water underneath.
Condensation: The buildup of relatively warm, moisture-laden air in a poorly ventilated attic promotes decay of the wood sheathing and rafters.
Moss and algae: Moss can grow on wood shingles and shakes if they are kept moist by poor sunlight conditions or bad drainage. Once it grows, moss holds even more moisture to the roof surface, causing rot, and its roots actually work their way into the wood.
Algae also grows in damp, shaded areas on wood or asphalt shingle roof systems. Besides creating an ugly black-green stain, algae can retain moisture, causing rot and deterioration.
Trees and bushes should be trimmed away from the house to eliminate damp, shaded areas, and gutters should be kept clean to ensure good drainage. Tree branches touching the roof will scratch and gouge roofing materials as they are blown back and forth. Leaves retain moisture and cause rot.
Missing or torn shingles: No longer complete protection.
Shingle deterioration: When shingles get old and worn out, they curl, split, and lose their waterproofing effectiveness and are more easily blown off, torn, or lifted by wind gusts.
Flashing deterioration: Many apparent roof leaks really are flashing leaks around chimneys, vents, skylights, and wall/roof junctions.

How can you know when a roof system has problems?

A periodic inspection can reduce future grief and head-off problems. We have an animated look at signs of trouble.

How long can you expect a roof system to last?

The condition and lifespan of your roof system will depend on the type of roof system you have, the effects of the local environment. According to the American Society of Home Inspectors, asphalt shingles generally last 15 to 20 years; wood shingle/shakes, 10 to 40 years; clay/concrete tiles, 20+ years; slate, 30 to 100 years; and metal roofing, 15 to 40+ years. Our top-of-the-line roofing product manufacturers offer a variety of warranties.
When selecting a new roof, cost and durability are tops, but aesthetics and architectural style are important, too. The right roof balances these four considerations.