

## ROOF SYSTEM COMPONENTS

Most roof systems have five basic components. Each plays an important role in the life of your roof.

1. Roof covering: shingles, tile, slate or metal and underlayment (tar paper beneath covering) to protect sheathing from weather.
2. Sheathing: boards or sheet material fastened to roof rafters to cover a house.
3. Roof structure: rafters and trusses built to support the sheathing.
4. Flashing: sheet metal or other material installed into a roof system's joints and valleys to prevent water seepage.
5. Drainage: a roof system's design features, such as shape, slope and layout that affect its ability to shed water.

A Class A fire rating by UL or ASTM means the material is effective against the most severe test exposure and therefore affords a high degree of fire protection to the roof deck.

## CARE AND MAINTENANCE

For most consumers, their single largest investment is the home. Just like anything else, it needs to be maintained, and that goes for your roof, too.

These simple maintenance tips can help your roof last longer:

- Proper eave and ridge ventilation may help extend roof life by reducing the buildup of heat and moisture.
- Keep trees trimmed to prevent them from rubbing against the roof and to prevent excessive debris buildup.
- Keep roof, valleys, gutters and downspouts free from leaves, twigs and other litter than can build up and prevent proper drainage.
- Preservatives available for some roof types may help limit weathering effects of moisture and retard growth of molds and mosses.

Roofing products have changed significantly over the years. There are a wide range of choices in material, appearance and price. When it's time for a new roof, make sure you're Roofing the Right Way, by choosing materials that will help protect your home for many years to come.

The Institute for Business & Home Safety has additional recommendations to help build a stronger roof, as outlined in its "Fortified...for safer living" new construction criteria. These include secure connections anchoring the roof to the walls; a thicker (5/8") plywood deck fastened to the rafters with stronger nails in more places; roofing tape at deck joints, and thicker (30#) felt to give two more lines of protection against water intrusion. Consult the IBHS Fortified Home Builders' Guide for more information.



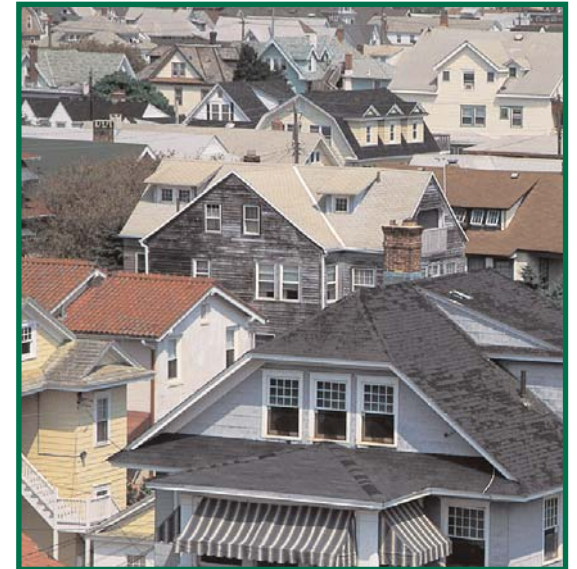
[www.ibhs.org](http://www.ibhs.org)

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The Institute for Business & Home Safety, a national organization supported by insurance and reinsurance member companies, works to reduce social and economic losses caused by natural disasters.

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# Roofing the Right Way



INSTITUTE FOR  
**Business &  
Home Safety™**

## ROOFING THE RIGHT WAY

Your roof is your home's first line of defense from the elements. But sun, wind and rain all wear down your roof over time.

Since your roof is the largest component of your house – it can also be the most vulnerable to severe storms – and the costliest single site of damage.

That's why it's important to make sure your roof is built the right way, with the right materials by a qualified licensed contractor.

Whether you're planning to re-roof now or years from now, this brochure will help you navigate the process, choose the right materials and show you how proper roof maintenance can identify problems before they become financial disasters.

## SIGNS OF A PROBLEM

When it rains, do too many roof granules wash away? Are there water stains on your ceiling? Even the smallest leak or curling shingle can be a sign of trouble. That's when it's time to hire someone who knows what to look for.

## HIRING A CONTRACTOR

Quality installation is an important part of the roofing equation. When choosing a contractor, the National Roofing Contractors Association ([www.nrca.net](http://www.nrca.net)) says you should:

- Get bids from reputable contractors and check their references.
- Request verification of insurance.
- Make sure the bid clearly defines the work that will be done, including hauling away of debris and yard cleanup.
- Specify within the contract a time frame for completion.
- Do not pay the full amount up front (one-third is usually sufficient) and don't make final payment until you verify the job is complete.
- Make sure the contract is signed by both parties.

## CHOOSING MATERIALS

You want your home to look nice. But while people typically select the look and color of roofing materials, they often leave key features, like resistance to the elements - hail impact, high wind and fire – to the contractor.

Hail damaged asphalt shingles.



It's important to understand why some roofing products work better in certain parts of the country than others. In addition to the weather your homes faces on a daily basis and disasters that could be a threat, the shape or type of roof also dictates which materials will better protect your home.

### Asphalt shingles reinforced with fiberglass:

- Relatively low cost and easy to install
- Good fire resistance (usually Class A)
- Class 3 and 4 impact resistance is available, should be used in hail regions
- Available with wind warranties up to 130 mph, if installed in accordance with manufacturer's high wind requirements

Underwriters Laboratories (UL) Inc. test 2218 simulates hailstones falling at peak velocity, and designates products with the most impact resistance as Class 4.

## Metal

- Long life
- Lightweight
- Popular for low and steep-slope roofs
- Often receives cosmetic damage from hailstorms, but Class 4 products rated for impact resistance are available
- Products available with Class A fire rating

## Slate

- Quarried in the Northeast and Virginia
- Very strong
- High quality slate can outlast most other roofing material
- Requires special skill and experience for installation, which can affect cost
- Heavy so your contractor should verify the structure can hold the weight if you are replacing another kind of roofing material

## Tile

- Good for a wide variety of climates (proper waterproofing underlayment and freeze-thaw issues must be addressed).
- Solid, long lasting product
- Higher threshold for hail damage (some have Class 3 or 4 impact resistance)
- Can be more permeable than other products if exposed to blowing rain
- Heavy, so your contractor should verify the structure can hold the weight if you are replacing another kind of roofing material

## Wood

- Good in dry climates
- Thinner products can be susceptible to hail damage, especially after aging
- Some building codes limit use because of wildfire concerns, but some products can be Class A fire rated with factory applied fire-resistant treatment
- Often used in wrong climates for cosmetic reasons