

THE TRUTH ABOUT ROOFING

Roofing Terms Defined

Aggregate: A surfacing material or ballast for a roof system. Aggregate can be rock, stone, crushed stone or slag, water-worn gravel, crushed lava rock or marble chips.

Algae discoloration: A type of roof discoloration caused by algae, also called fungus growth.

Alligatoring: Alligatoring is term used to describe the cracking of surfacing bitumen on a built-up roof. These cracks are the result of the limited tolerance of asphalt to thermal expansion or contraction, and produce a pattern that resembles an alligator's hide.

Attic: The open area above the ceiling and under the roof deck of a steep-sloped roof.

Asphalt shingle: a shingle manufactured by coating a reinforcing material (felt or fibrous glass mat) with asphalt and having mineral granules on the side exposed to the weather.

Back surfacing: Fine mineral matter applied to the back side of shingles to keep them from sticking.

Base flashing: That portion of the flashing attached to or resting on the deck to direct the flow of water onto the roof covering.

Battens: 1"x2"x4' wood strips nailed to the roof, upon which the field tile hangs.

Bird stop: In addition to preventing birds from nesting in the hollows of the tile, this length of formed metal or foam elevates the first course of tile so that it is positioned at the same angle as subsequent courses.

Blisters: Bubbles that may appear on the surface of asphalt roofing after installation.

Built-up roof: An outer covering of a comparatively flat roof, consisting of several layers of saturated felt. As laid, each layer is mopped with hot tar or asphalt. The top layer is finished with a mineral or rock covering and a special coating.

Bundle: A package of shingles. There are 3, 4 or 5 bundles per square.

Butt edge: The lower edge of the shingle tabs.

Caulk: To fill a joint with mastic or asphalt cement to prevent leaks.

Chalk line: A line made on the roof by snapping a taut string or cord dusted with chalk. Used for alignment purposes.

Class "A": The highest fire-resistance rating for roofing as per ASTM E-108. Indicates roofing is able to withstand severe exposure to fire originating from sources outside the building.

Class "B": Fire-resistance rating that indicates roofing materials are able to withstand moderate exposure to fire originating from sources outside the building.

Class "C": Fire-resistance rating that indicates roofing materials are able to withstand light exposure to fire originating from sources outside the building.

Closed cut valley: A method of valley treatment in which shingles from one side of the valley extend across the valley while shingles from the other side are trimmed two inches from the valley centerline. The valley flashing is not exposed.

Coating: A layer of viscous asphalt applied to the base material into which granules or other surfacing is embedded.

Collar: Pre-formed flange placed over a vent pipe to seal the roof around the vent pipe opening. The collar is also called a vent sleeve.

Color-through: During manufacturing, the color is mixed throughout the roofing material to become an integral part of it. When the product is cut, the affected area shows the same color as the surface.

Concealed nail method: Application of roll roofing in which all nails are driven into the underlying course of roofing and covered by a cemented, overlapping course. Nails are not exposed to the weather.

Condensation: The change of water from vapor to liquid when warm, moisture-laden air comes in contact with a cold surface.

Counter flashing: That portion of the flashing attached to a vertical surface to prevent water from migrating behind the base flashing.

Course: A row of shingles or roll roofing running the length of the roof.

Coverage: Amount of weather protection provided by the roofing material. Depends on number of layers of material between the exposed surface of the roofing and the deck; i.e., single coverage, double coverage, etc.

Cricket: A peaked saddle construction at the back of a chimney to prevent accumulation of snow and ice and to deflect water around the chimney.

Cutout: The open portions of a strip shingle between the tabs.

Deck or Decking: The structural "skin" of a roof over which roofing is applied. Most new homes have decking made of plywood. There are four main types of decking commonly used on residential roofing projects:

- Plywood: Plywood is strong, durable, and light. It comes in many grades with ratings from A to D. Use only exterior grade plywood for decking. The thickness of plywood depends on the spacing of the rafters.
- OSB: Oriented strand board (OSB) is cheaper than plywood, but not as strong as plywood, and does not hold nails as well as plywood. One side has a slip resistant coating and should be placed facing up.
- Tongue and groove 2-by-6: If a roof will be seen from the inside (no ceiling installed), tongue and groove is used. It is a wood decking that provides great insulation without additional rigid roof insulation in moderate climates. Also, the boards can be painted or stained on the inside to match the interior.
- Step sheathing: Step sheathing is used alone or in combinations with solid sheathing for installation of tiles or shakes. Step sheathing allows air circulations under the tiles by using 1-by-6 or 2-by-6 boards that are evenly spaced so that air can move under the tiles or shakes.

Dimensional shingle: a shingle that is textured, overlaid, or laminated and designed to produce a three-dimensional effect. Similar to Laminated shingle and Architectural shingle.

Dormer: A framed window unit that projects through the sloping plane of a roof.

Double coverage: Application of asphalt roofing such that the lapped portion is at least two inches wider than the exposed portion, resulting in two layers of roofing material over the deck.

Downspout: A pipe for draining water from roof gutters. A downspout is also called a leader.

Drip edge: A non-corrosive, non-staining material used along the eaves and rakes to allow water run-off to drip clear of underlying construction.

Dutch lap method: Application of giant individual shingles with the long dimension parallel to the eaves. Shingles are applied to overlap adjacent shingles in each course as well as the course below.

Eaves: The horizontal, lower edge of a sloped roof.

Eaves flashing: Additional layer of roofing material applied at the eaves to help prevent damage from water back-up.

Edging strips: Boards nailed along eaves and rakes after cutting back existing wood shingles to provide secure edges for re-roofing with asphalt shingles.

Edge venting: The installation of a vent material along the roof edge (e.g., Starter Vent) as part of a ventilation system. Edge vent material should be used in conjunction with other venting material (e.g., ridge vent) as it not intended for use by itself.

Exposed nail method: Application of roll roofing in which all nails are driven into the cemented, overlapping course of roofing. Nails are exposed to the weather.

Exposure: Portion of the shingle exposed to the weather. Exposure is measured from the butt of one shingle to the butt of the next.

Fascia: Horizontal trim at the eaves that covers the rafter ends.

Feathering strips: Tapered wood filler strips placed along the butts of old wood shingles to create a level surface when re-roofing over existing wood shingle roofs. Feathering strips are also called horse feathers.

Felt: A flexible sheet that is saturated with asphalt and used as an underlayment, sometimes called "tar paper"

Fiber-cement: A roofing material that has cellulose (wood fiber) mixed into it. Cellulose absorbs water and can add greatly to the roof's weight, while reducing its longevity.

Fiberglass mat: An asphalt roofing base material manufactured from glass fibers.

Flashing: Pieces of metal or roll roofing used to prevent seepage of water into a building around any intersection or projection in a roof such as vent pipes, chimneys, adjoining walls, dormers and valleys. Galvanized metal flashing should be minimum 26-gauge. There are 4 main types of flashing used in residential roofing systems:

- Valley flashing: This flashing is used in open valleys of the roof. Most often leaks are found in the valley flashings due to flashing that is nailed to tightly to the decking or shingles that are not trimmed far enough off the flashing.
- Plumbing vent flashing: Plumbing vent flashing prevents rainwater from running into holes cut for pipes in the roof. This flashing is sold according to the size of the vent pipe and the roof angle. Roofing material is installed over the flashing.
- Lead flashing: When working with tile roofs, lead flashing is used. In the case of a plumbing vent flashing, the lead flashing is actually molded to the shape of the tile's surface. Then the top of the lead flashing is covered by the next tile to prevent water from seeping under the flashing.
- Step flashing: When a chimney or dormer wall intercepts the slope of the roof, step flashing is used. Step flashing is usually a metal piece that is bent in the middle, so that one end lays on the roof, and the other against the vertical wall of the dormer or chimney.
- Flashing is one of the most important elements of the roof because it seals the seams and joints of the roof--the locations where leaks are most likely to occur. Often, flashing is not maintained well, or installed correctly in the first place. Check for the following signs that your flashing needs maintenance or repair:
 - Rusting of metal flashing
 - Excess leaves and debris in valleys or seams of the roof (can lead to rusting and corroding of the metal)
 - Prolonged exposure to the elements such as moisture, UV rays, climate changes--especially when asphalt compounds or caulking material is used. Look for cracks, loss of elasticity and delamination.

In many cases the flashing can be cleaned and then repaired, relaminated or repainted (even in the case of rust). In other cases, the flashing may need to be replaced.

Flashing cement: An asphalt-based cement used to bond roofing materials. Flashing cement is also known as mastic.

Free-tab shingles: Shingles that do not contain factory-applied strips or spots of self-sealing adhesive.

Gable: The upper portion of a sidewall that comes to a triangular point at the ridge of a sloping roof.

Gable roof: A type of roof containing sloping planes of the same pitch on each side of the ridge. A gable roof typically contains a gable at each end.

Gambrel roof: A type of roof containing two sloping planes of different pitch on each side of the ridge. The lower plane has a steeper slope than the upper. A gambrel roof usually contains a gable at each end, just like a standard gable roof.

Granules: Ceramic-coated colored crushed rock that is applied to the exposed surface of asphalt roofing products.

Gutter: The trough that channels water from the eaves to the downspouts.

HEX shingles: Shingles that have the appearance of a hexagon after installation.

Hip: The inclined external angle formed by the intersection of two sloping roof planes. The hip runs from the ridge to the eaves.

Hip roof: A type of roof containing sloping planes of the same pitch on each of four sides. A hip roof contains no gables.

Hip shingles: Shingles used to cover the inclined external angle formed by the intersection of two sloping roof planes.

Ice dam: Ice dams occur when snow melts near the ridgelines of warm roofs (roofs without adequate ventilation). As the water runs down the roof to the overhang, it cools and freezes. If the snow continues this melt and freeze process, an ice dam can form that can seep under the shingles, through the decking and into the house. This, of course, can cause serious roof leaks--even in freezing temperatures.

The best prevention to ice dams is a well-ventilated (cool) roof. Additional protection for your roof can be applied with an impermeable ice and water membrane. The membrane is installed on top of the decking, under the roofing material. Temporary prevention of ice dams can also be done through the use of electric cables along the eaves of the roof (where the dams usually form). However, new ice dams can form above the cables and still cause extensive damage. Another emergency solution to ice dams is to fill a sock or nylon with calcium chloride. Lay the stocking vertically across the ice dam. The calcium chloride will melt the ice and release the water so that it can drain outside, and not inside your roof.

Intake Ventilation: The part of a ventilation system used to draw fresh air in. Usually vents installed in the soffit or along the eaves of a building.

Interlocking shingles: Individual shingles that mechanically fasten to each other to provide wind resistance.

Joists: Any of the small timbers or metal beams ranged parallel from wall to wall in a structure to support a floor or ceiling.

Laminated shingles: Strip shingles containing more than one layer of tabs to create extra thickness. Laminated shingles are also called three-dimensional shingles.

Lap: To cover the surface of one shingle or roll with another.

Lap cement: An asphalt-based cement used to adhere overlapping plies of roll roofing.

Lean-to roof: A roof with one slope only that is built against a higher wall.

Life-cycle cost: The total lifetime cost of a roof. Calculated by adding maintenance costs to the installed price, then deducting the added value the roof provides when the home is resold.

Low slope application: Method of installing asphalt shingles on roof slopes between two and four inches per foot.

Mansard roof: A type of roof containing two sloping planes of different pitch on each of four sides. The lower plane has a much steeper pitch than the upper, often approaching vertical. Contains no gables.

Mastic: An asphalt-based cement used to bond roofing materials. Also known as flashing cement.

Metal drip edge: A narrow strip of non-corrodible metal used at the rake and eave to facilitate water runoff.

Mineral-surfaced roofing: Asphalt shingles and roll roofing that are covered with granules.

Modified Bitumen: Roofing asphalt that has been blended with some of a broad range of materials which improve its performance characteristics.

Nesting: A method of re-roofing with new asphalt shingles over old shingles in which the top edge of the new shingle is butted against the bottom edge of the existing shingle tab.

New construction: Installing a roof system on new construction.

No-cutout shingles: Shingles consisting of a single, solid tab with no cutouts.

Non-prorated warranty: A warranty which provides full replacement costs for the item(s) covered during the full term of the warranty. In contrast, a prorated warranty merely reimburses a percentage of replacement costs, depending on the age of the roof.

Non-veneer panel: Any wood based panel that does not contain veneer and carries an APA span rating, such as wafer board or oriented strand board.

Normal slope application: Method of installing asphalt shingles on roof slopes between 4 inches and 21 inches per foot.

Open valley: Method of valley construction in which shingles on both sides of the valley are trimmed along a chalk line snapped on each side of the valley. Shingles do not extend across the valley. Valley flashing is exposed.

Organic felt: An asphalt roofing base material manufactured from cellulose fibers.

Organic shingle: An asphalt shingle reinforced with organic material manufactured from cellulose fibers.

Overhang: That portion of the roof structure that extends beyond the exterior walls of a building.

Pallets: Wooden platforms used for storing and shipping bundles of shingles.

Parapet: A low protective wall that extends above the roofline or balcony for support.

Pitch: Also known as "slope", pitch is the measure of how "steep" a roof is. For example, if a roof is "4 in 12", the roof rises 4 inches for every horizontal run of 12 inches. The pitch of the roof is a big factor in determining the kinds of materials that can be used and the longevity of the roof. Usually, a steeper roof (higher pitch) will last longer due to its better drainage capabilities.

Plastic cement: A compound used to seal flashings and in some cases to seal down shingles as well as for other small waterproofing jobs. Where plastic cement is required for sealing down shingles, use a dab about the size of a half dollar unless otherwise specified.

Ply: The number of layers of roofing: i.e. one-ply, two-ply.

Racking: Roofing application method in which shingle courses are applied vertically up the roof rather than across and up. Not a recommended procedure.

Rafter: The supporting framing member immediately beneath the deck, sloping from the ridge to the wall plate.

Rake: The inclined edge of a sloped roof over a wall from the eave to the ridge.

Random-tab shingles: Shingles on which tabs vary in size and exposure.

Release tape: A plastic or paper strip that is applied to the back of self-sealing shingles. This strip prevents the shingles from sticking together in the bundles, and need not be removed for application.

Re-cover (overlay): The installation of a new roof system over an existing system without removing an existing system.

Re-roofing: Installing a new roof system on a building that is not new.

Ridge: The uppermost, horizontal external angle formed by the intersection of two sloping roof planes.

Ridge shingles: Shingles used to cover the horizontal external angle formed by the intersection of two sloping roof planes.

Rise: The vertical distance from the eaves line to the ridge.

Roll roofing: Asphalt roofing products manufactured in roll form.

Roofing tape: An asphalt-saturated tape used with asphalt cements for flashing and patching asphalt roofing.

Run: The horizontal distance from the eaves to a point directly under the ridge. One half the span.

Saturant: Asphalt used to impregnate an organic felt base material.

Self-sealing shingles: Shingles containing factory-applied strips or spots a thermal sealing tab cement to firmly cement the shingles together automatically after they have been applied properly and exposed to warm sun temperatures. In warm seasons, the seal will be complete in a matter of days. In colder seasons, sealing time depends on the temperature and amount of direct sunlight hitting the shingles. Hand sealing with plastic cement should be done to ensure sealing in winter.

Self-sealing strip or spot: Also known as self-sealing cement. Factory-applied adhesive that bonds shingle courses together when exposed to the heat of the sun after application.

Selvage: That portion of roll roofing overlapped by the succeeding course to obtain double coverage.

Shading: Slight differences in shingle color that may occur as a result of normal manufacturing operations.

Sheathing: Exterior grade boards used as a roof deck material. "Step sheathing" is used alone or in combinations with solid sheathing for installation of tiles or shakes. Step sheathing allows air circulations under the tiles by using 1-by-6 or 2-by-6 boards that are evenly spaced so that air can move under the tiles or shakes.

Shed roof: A roof containing only one sloping plane. Has no hips, ridges, valleys or gables.

Single coverage: Asphalt roofing that provides one layer of roofing material over the deck.

Slope: The degree of roof incline expressed as the ratio of the rise, in inches, to the run, in feet.

Smooth-surfaced roofing: Roll roofing that is covered with ground talc or mica instead of granules (coated).

Soffit: The finished underside of the eaves.

Soil stack: A vent pipe that penetrates the roof.

Span: The horizontal distance from eaves to eaves.

Specialty eaves flashing membrane: A self-adhering, waterproofing shingle underlayment designed to protect against water infiltration due to ice dams or wind-driven rain.

Square: A unit of roof measure covering 100 square feet.

Square-tab shingles: Shingles on which tabs are all the same size and exposure.

Starter strip: Asphalt roofing applied at the eaves that provides protection by filling in the spaces under the cutouts and joints of the first course of shingles.

Steep slope application: Method of installing asphalt shingles on roof slopes greater than 21 inches per foot.

Step flashing: Flashing application method used where a vertical surface meets a sloping roof plane.

Strip shingles: Asphalt shingles that are approximately three times as long as they are wide.

Tab: The exposed portion of strip shingles defined by cutouts.

Tar paper: See "Felt"

Tear off: Removing an existing roof system.

Telegraphing: A shingle distortion that may arise when a new roof is applied over an uneven surface.

Three-dimensional shingles: See laminated shingles.

Three-tab shingle: The most popular type of asphalt shingle usually 12" x 36" in size with three tabs.

Top lap: That portion of the roofing covered by the succeeding course after installation.

UL: Underwriters Laboratories, Inc.

UL label: Label displayed on packaging to indicate the level of fire and/or wind resistance of asphalt roofing.

Underlayment: A layer of asphalt saturated (sometimes referred to as tar paper) which is laid down on a bare deck before shingles are installed to provide additional protection for the deck.

Valley: The internal angle formed by the intersection of two sloping roof planes to provide water runoff.

Vent: Any outlet for air that protrudes through the roof deck such as a pipe or stack. Any device installed on the roof, gable or soffit for the purpose of ventilating the underside of the roof deck.

Vent sleeve: See collar.

Woven Valley: Method of valley construction in which shingles from both sides of the valley extend across the valley and are woven together by overlapping alternate courses as they are applied. The valley flashing is not exposed.

ROOF MATERIALS FOR A PITCHED ROOF

Pitched Roof

[Shingles & Shakes Roofing](#)

[Tile Roofing](#)

[Metal Roofing](#)

[Slate Roofing](#)

Shingles and Shakes

Roof materials - Shingles and Shakes Resource

Cedar

shakes

Cedar shakes combine a traditional look with reliable, modern performance. Cedar shakes are a great choice for historic homes or homes in new developments with high appearance standards. Also, cedar shakes are an environmentally friendly option for consumers. The life expectancy of cedar shakes is up to 30 years, if quality materials are used. If the contractor uses commodity materials (low quality) or if the workmanship is poor, the life expectancy can drop to only 5 to 8 years. Another concern potentially associated with cedar shakes is that many communities will require you to install pressure-treated fire retardant shakes, which increases the cost of the materials.

Asphalt (Composition) shingles

Composition shingles are used on the majority of homes in the United States. These shingles are made of a base (organic or fiberglass) that is saturated with asphalt and coated with minerals on one side to resist weathering. The fiberglass shingles are more flexible and stronger than organic shingles. Shingles come in a wide variety of colors. Composition roofs can be overlaid with a new roof if the initial roof is a single layer and in good condition. The life expectancy of composition shingles depends on the rating (e.g., quality) and ranges from 20 to 30 years. Most manufacturers will cover a composition roof under warranty, but only if it has been installed by a certified roofer as the most common problems and maintenance issues occur when the installation did not include adequate ventilation and/or flashing. As with most types of roofing, moss buildup needs to be controlled to prevent damage to the shingles.

Dimensional shingles

Dimensional shingles are very similar to composition shingles, but are thicker, and can be used to create a more custom appearance. Depending on the rating, dimensional shingles also have a much better lifespan, with an expectancy of up to 40 years. The issues and concerns with a dimensional roof are the same as those associated with composition shingles, moss buildup, quality, and adequate venting/flashing.

Tile

Tile Roof Materials Resource

Clay Clay tile is most often thought of in the traditional "S" or "Spanish" tile look but clay can now be made in several other patterns as well. Tile is a very resilient material and is able to withstand some of the harshest elements such as hail, wind, and fire. The one drawback to tiles is their weight; they are very heavy, and require certain structural standards for the frame and decking of the roof. They have a great life expectancy, with a minimum duration of 40 to 50 years. Tiles may need to be predrilled and nailed if you have a steep pitch roof, or even supported by metal brackets, all of which could increase the cost associated with this type of roofing system. Tile roofs offer one of the longest warranties in the roofing industry. Most tile manufacturers (both clay and concrete) will offer a minimum of a 50 year limited warranty on their products.

Tile

Concrete Tile

Concrete tile has essentially all of the upsides of clay tile but with the added advantage of being available in an even greater number of styles including traditional clay, slate, and even wood shake! It is ideal for communities with appearance codes because it has such a wide range of appearance options.

Pros:

- Long life
- Long warranty
- Strong material
- Available in a variety of shapes and colors
- Environmentally Friendly

Cons:

- Material expense
- A heavy material, which will not work on all roofs

Slate

Slate Roofing

Slate is a beautiful but expensive option for roofing. Slate can come in a variety of colors, with the best quality product coming from Vermont. Additionally, slate can be found in Pennsylvania and China. (Some high quality slate can be found in China, but the consumer should be sure to order the highest grade possible to ensure the quality.) Slate is a heavy roofing material and can only be used on roofs that can withstand its weight. The nicest thing about a slate roof is its life expectancy, more than 100 years! However, a slate roof is often very difficult to repair if repairs are needed, as slate will crack if it is stepped on.

Synthetic slate

Synthetic slate is much lighter than real slate, and can be made from ceramic tile or fibers of wood or cellulose. Synthetic slate is also less fragile, while maintaining the high fire resistance associated with tradition slate. Because the fibers can often absorb water, synthetic slate is not recommended for climates with a lot of freezing and thawing.

Pros:

- Long life
- Long warranty
- Good weather resistance
- Enviornmentally Friendly

Cons:

- Material expense
- Expensive to repair

Metal

Metal roofing

Metal roofs are great for any type of roof and are ideal in forested, moss prone, or heavy precipitation areas. Typically steel, aluminum or copper metal roofing offers homeowners the chance to choose from a multitude of colors and textures even cedar shake or tile (without the excess weight of tile). Most metal roofs are installed in sheets, but can also be installed in shingles, the most popular being aluminum and copper.

The cost of metal roofing is initially higher than that of some other roofing systems, but it has a longer lifetime than other roofing materials and can significantly lower heating and air conditioning costs, making a metal roof a very good investment for your home. Furthermore, most metal roofs are made from recycled metals, so provide an environmentally friendly option for your home. Although metal roofs can be walked on, care should be taken when walking on a roof with deep shake and tile profiles, to prevent damage to the contour of the ridges. On the plus side, aluminum and steel are typically coated with a Kynar coating (or similar coating) to prevent peeling and fading.

Pros:

- Long life
- Long warranty
- Good weather resistance
- Available in a variety of shapes and colors
- Environmentally Friendly

Cons:

- Material expense

ROOF MATERIALS FOR A FLAT ROOF

[Tar, Bitumen & Rolled Roofing](#)

[Rubber & PVC Roofing](#)

[Metal Roofing](#)

Tar & Gravel, Modified Bitumen, Rolled Roofing

[Built-Up Roof](#) (click for glossary definition)

Built up roofs are when the pitch is no more than 3 inches rise to 12 inches run. This roof is installed by alternating layers of heavy roofing felt and hot asphalt or tar. The final product is coated with a mineral such as gravel. Built-up roofs are rated by how many layers are applied, usually between 3 and 5 layers are considered standard.

Pros:

- Lower cost
- Good weather resistance

Cons:

- Can be messy to install
- Not intended for high rain or snow areas

Modified bitumen roofing (click for glossary definition)

Similar to the tar and gravel roof, this roof adds layers of polyester or fiberglass with bitumen. These additional layers add strength and resistance to a flat roof.

Pros:

- Lower cost
- Good weather resistance

Cons:

- Can be messy to install
- Not intended for high rain or snow areas

Roll roofing (click for glossary definition)

This low cost roofing product is made from materials similar to asphalt shingles, but has a relatively short life expectancy-less than 10 years-because it is a single-ply roof. Roll roofing is commonly known as 90-pound felt, since one roll covering 100 square feet weighs around 90 pounds.

Pros:

- Low cost
- Reasonable weather resistance

Cons:

- Short life
- Not intended for high rain or snow areas

EPDM & PVC

Roof materials - EPDM & PVC

EPDM rubber roofing
The ethylene propylene diene monomer (EPDM) creates a single layer rubberized roof that is long lasting and UV resistant. EPDM roofing systems do not require a mineral coating, which makes them much lighter than tar and gravel roofs. It should be noted that a rigid insulation is recommended for this type of roof.

Pros:

- Energy Efficient
- Can be used with a wide variety of roof shapes
- Cleaner application than many low slope options
- Performs well in high wind and hail
- Good long-term performance for a low slope roof

Cons:

- Not intended for high rain or snow areas

PVC membrane roofing systems
PVC membrane is a roof membrane composed of only one layer of material, polyvinyl chloride. PVC roofs are specially designed to withstand ponding water- PVC membrane is welded together with hot air (no open flame) to eliminate all seams so moisture can not pass through. PVC roofing systems also reflect nearly 90% of the heat of the sun, thus lowering energy costs substantially, especially in high-heat areas such as the southwestern United States.

Pros:

- Fire safe material
- Energy Efficient
- Good weather resistance
- Good long-term performance for a low slope roof

Cons:

- Not intended for high rain or snow areas

Metal

Metal roofing

Metal roofs are great for any type of roof and are ideal in forested, moss prone, or heavy precipitation areas. Typically steel, aluminum or copper metal roofing offers homeowners the chance to choose from a multitude of colors and textures even cedar shake or tile (without the excess weight of tile). Most metal roofs are installed in sheets, but can also be installed in shingles, the most popular being aluminum and copper.

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Pros:

- Long life
- Long warranty
- Good weather resistance
- Available in a variety of shapes and colors
- Environmentally Friendly

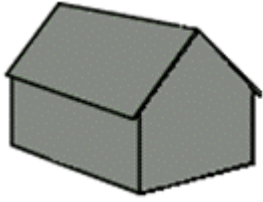
Cons:

- Material expense

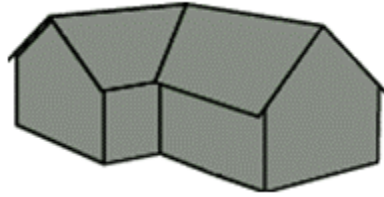
Roof Types - Roofing Styles

Illustrated below are some of the most standard roof styles. Take a look and see if your home is among the most common (gable or hip roof) or something more unique. You might also find interest in learning more about the [parts of a roof](#).

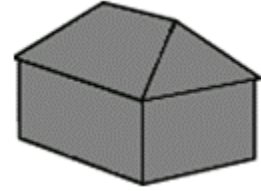
Roof Types Resource



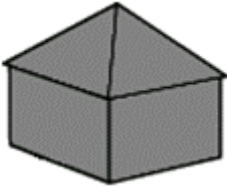
Gable Roof



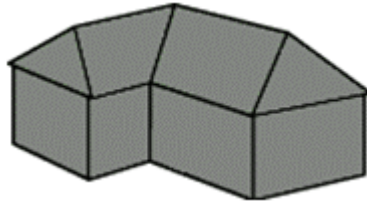
Cross Gabled Roof



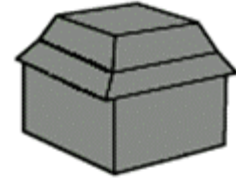
Simple Hip Roof



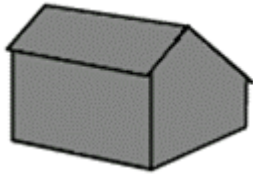
Pyramid Hip Roof



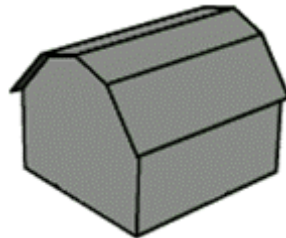
Cross Hipped Roof



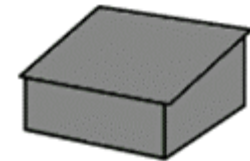
Mansard Roof



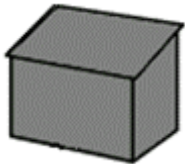
Saltbox Roof



Gambrel Roof



Flat Roof

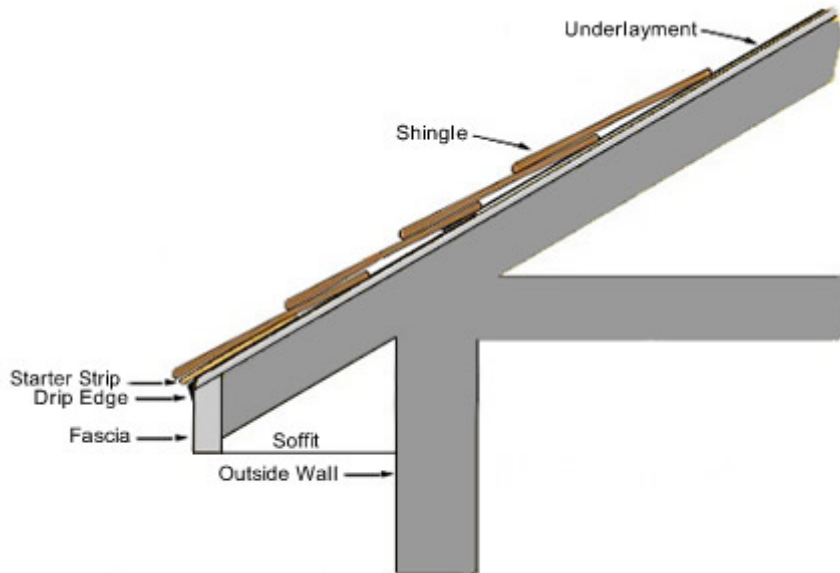


Shed Roof

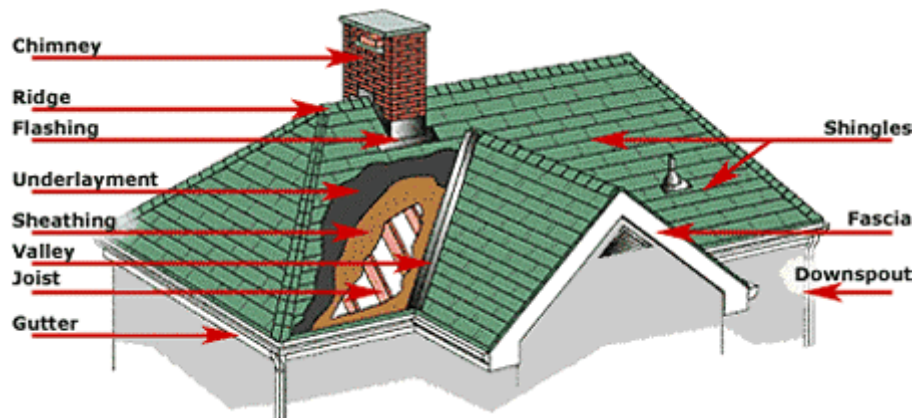
Parts of a Roof

Typical Parts of a Roof

Below you will find the major roof components illustrated and briefly defined.



- Roof Truss – the skeleton of the roof. A framework of beams that support the roof
- Rafters – The beams that run from the top of the roof to the bottom . Part of the roof truss.
- Decking or Sheathing – Panels that cover the rafters and to which the roofing material (shingles, metal panels, etc..) are attached.
- Underlayment – often called tar paper this heavy felt paper (synthetic materials are available as well) is placed on top of the decking before the roofing material is installed to offer an additional layer of protection from moisture.
- Drip Edge – edging that is placed at the end of the roof (end of the eaves) used to allow water to run-off and drip clear of underlying construction.
- Fascia – trim used to cover the rafter end of the eaves. Often where gutters are attached to the house.
- Soffit – a finished underside of the eaves. Covers the area between the end of the eaves and the house.
- Valley - internal angle formed when by the intersection of two sloping roof planes. The intersection of a cross hip or cross gable roof.
- Hip - external angle formed by the intersection of two sloping roof planes
- Gable – triangle shaped part of the end of a building underneath the roof and above the main portion of the house
- Ridge – the highest point of the roof that runs the length of the roof.
- Flashing - Pieces of metal used to prevent the seepage of water around any intersection or projection in a roof, such as vent pipes, chimneys, valleys, and the joints at vertical walls.
- Starter Strip - Asphalt roofing applied at the eaves that provides protection by filling in the spaces under the cutouts and joints of the first course of shingles.



What to Expect When Installing a Roof

Having a roof replaced is an experience that many home owners go through at least once. While it can sound like a real headache, if you are aware of what to expect in advance, and plan ahead, you can enjoy a hassle-free roof repair process.

Inside and Outside - What to Expect from Your Roof Install

A great deal of debris —namely, your old roof—will literally be thrown down from the top of your house into your yard during this project. To minimize damage, the yard should be cleared of everything that can be removed—law ornaments, hose, potted plants, etc. Valued landscaping/plant life should be marked with red tape and covered with tarp; any in-ground sprinkler system should be visibly marked as well. Discuss this process with your contractor so you can be sure to leave adequate space for the workers to do their job. It's better to choose a small area of lawn as a designated 'sacrifice' than to deny them access to anything, which usually means debris will be thrown everywhere.

One advance precaution that most people forget until it's too late is to **warn the neighbors of the impending temporary increase in noise and traffic**. You yourself may want to make plans to be out of the house during working hours to avoid the loud sounds. If you need any neighbors to move their vehicles to allow for a clearer path for the roofing trucks, make sure to give them plenty of notice, and offer to do the same for them should they ever need it.

Many homeowners don't consider that having work done on the roof outside can affect what's going on inside. Persistent hammering and multiple people walking above can cause your home's structure to shake. If you live in an earthquake-prone area, your home is likely already in pretty good shape to handle this added activity. If you don't, you may want to perform a more thorough walk-through before any roofing activity commences.

Start by looking up. **Anything mounted to the ceiling, whether it's hanging plants or chandeliers, is in danger of breaking** and/or causing cracks to form in the surrounding ceiling. Grab a ladder and a screwdriver, and take down whatever you can. (This can be a great reason for finally cleaning off that dusty ceiling fan.) In a multi-story home, items hung from your first floor ceilings may or may not need to come down; ask your contractor for specifics.

After the ceilings have been cleared, turn to the walls and take down any photographs, art, or other hanging objects. You will also want to be on the lookout for furniture and decorations vulnerable to heavy tremors, like a glass display case or a vase resting on an unsteady table. You'll want to remove these items to safer locations until your new roof is complete. The company you hire may even provide an extra pair of hands or two to take these items down and/or put them back up, if you need them.

Now that you know what to expect take a look at some [important roofing considerations](#) to think through before the project begins.

RoofHelper Important Links

[Roofers Central](#)

A roofing forum and roofing directory for roofers and all roofing industry professionals.

[BuilderCentral.com - Comprehensive Home Builder Web Directory](#)

[Construction Industry Resource: Websites4Contractors.com](#)

Services include: construction industry link directory, web design and marketing for the construction industry, pre-designed website packages for contractors and custom websites.

[EZ Rip the Super-Fast Drywall Cutting Tool](#)

Finally there is a better way to cut drywall. The proof is in the patents!

[TheCarpetSpot- Carpet and Cleaning Information](#)

Free information and advice on carpeting, carpet cleaning, and carpet allergies.

[Roofing](#) - Roofing at GuideCentral.com

[Home Improvement Information](#)

A great site that focuses on all aspects of home improvement. Regularly updated by a wide assortment of home improvement professionals.