

ROKWELL.BIZ MAINTENANCE TIPS

What are the steps involved in the removal and replacement of damaged shingles?

The following steps are recommended for the proper removal and replacement of damaged shingles.

Notes: • In hot weather, cool shingles with a water hose to allow easy separation of the shingle tabs; • In cold weather, avoid excessive bending of the shingles as it could cause cracking.

Step 1: Loosen adhesive under tabs in the second row above the damaged shingle. Lift tabs and withdraw the exposed nails.

Step 2: Loosen and lift tabs in the first row above damaged shingle and withdraw exposed nails.

Step 3: Loosen tabs of damaged shingle which can now be removed.

Step 4: Place new shingle in the same position from which the sample was removed and re-nail. To reseal shingles, lift tab and apply 1" diameter spot of shingle cement under each tab. Press tabs down into the cement. Repeat nailing and cement procedure for any other rows that are damaged.

[Why is ventilation so important?](#)

Importance of Ventilation

Ventilation is a crucial factor in the life of a roofing shingle. Heat build-up in the hot summer months, as well as the cold weather of winter will accelerate the aging process of your asphalt roofing shingles. Proper air circulation, regardless of the weather outside, will greatly reduce the chances of leaking, blistering, distortion, curling, rotting of wood structure, wet insulation and many other potential problems.

It is also important to note that adequate ventilation is required to validate the shingles manufacturer warranty. In Canada for example, minimum requirements prescribed in the National Building Code must be respected. In all cases, the most stringent applicable building codes must be followed.

[Why do different shingle types carry different warranties?](#)

In today's market, there are many types and styles of shingles available. The various types of shingles come with warranties representative of the life expectancy of each type.

Generally speaking, the heavier the shingle, the longer the warranty. All other things being equal, the weight difference comes from the amount of waterproofing material (asphalt) used during manufacture.

[Why are there sections of my roof where the shingles are buckling or puckering?](#)

Buckling or Puckering areas on roof

Fishmouthing looks like buckling but it is usually random on the roof. The front edge of the shingle is raised, and tapers back into the shingle. Although it does not usually affect the durability of the shingle, it should be addressed. Possible Causes:

Moisture build-up in the attic can cause wetting & drying cycles in the shingles. Improving attic ventilation can prevent this.

Installing wet shingles on a dry day, or dry shingles on a wet day will almost guarantee the appearance of fishmouthing.

Nails that are 'popping' out can also cause fishmouthing. Simply correct the position of the nail.

This phenomena is mainly an aesthetic issue that can be repaired in most cases. The most common repair method would be to use hot melt adhesive to glue down the distorted shingle rendering it flat. To proceed, the sealant bond of the affected shingle should be broken first. These types of repairs are best carried out in mild (not too hot) weather conditions.

[Why are the corners of my shingles turning up?](#)

Curling

Corners of shingles turning up is referred to as **Curling** and it is generally caused by excess moisture attacking the underside of the shingle. Inadequate ventilation causes the entrapment of heat and moisture in the attic. This will eventually penetrate the roof deck and cause the shingles to curl. Improving air circulation within the attic space can stop the progress and rectify the situation if the curling is not too severe. In some rare instances, curling can reveal itself only under cold weather conditions. This would be referred to as winter curling. The corners of the shingles will slightly curl up from the roof deck when cold, then lay flat again during warmer weather. This is especially prevalent during damp winter conditions when frost

forms on the top surface of the shingles. This cooling on the top surface will cause the shingle to contract while at the same time the underside of the shingle in contact with the roof receives a certain amount of passive heat from the attic space. The variation of temperature between the top side and underside of the shingle will result in some minor curling. This does not affect the shingle's durability and effectiveness to shed water.

[Why are there granules in my gutter?](#)

Gutter Granules

Granule loss is a normal process in the weathering and aging of any asphalt shingle.

Common causes of additional granule loss:

Traffic on roof;

Shingles applied on very slight slopes (2" in 12" or less), are prone to increased levels of granule loss due to the poor drainage capabilities of the roof.

A certain amount of granule loss is to be expected. Shingles are made with an excess of granules on the surface called "hitchhikers". If the underlying asphalt is prematurely exposed, the appearance and service life of the shingle may be affected.

[Why are the shingles bubbling or bumpy?](#)

Blistering

Small bubbles or bumps will sometimes develop on the surface of roofing materials. This is referred to as **blistering** that will generally appear within 2-3 years of product installation.

Small rash blisters, 7mm (1/4") or less, will not normally affect the performance of the shingle. Larger blisters, often up to 2.5cm (1") in diameter, can shorten the life of the shingle as they often break exposing the underlying components of the shingle. Causes include trapped moisture, inadequate ventilation of the attic, excessive use of adhesive, or the use of non-compliant adhesive.

[Why are my shingles doing the wave?](#)

Buckling

Buckling shingles can become humped or wavy, usually running in a straight line up, or across the roof. Possible Causes:

Deck or felt movement often caused by varying moisture levels in the material under the shingles. The shift will cause the nails to move in accordance with the deck forcing the shingles closer or farther apart depending on the situation.

Improper nailing - nails will 'pop up' creating the buckling effect.

Shingles nailed too tightly together.

Thin decking (3/8") over 24" centers can be the cause due to clips, meant to hold the decking in place, coming lose or coming off.

Depending on the cause of the buckling, improving attic ventilation to eliminate excess humidity, removing fasteners and refastening or replacing distorted shingles can be some possible solutions.

[What can you tell me about roofing under cold weather conditions?](#)

Roofing under cold weather

Cold weather guidelines:

Traffic on the roof should be avoided as ice, snow and frost make the surface hazardous and can also cause shingles to break or crack.

When removing snow, avoid direct contact with the shingles as this will scrape off the protective granules.

When applying shingles in temperature below 0°C (32 °F), handle the product with care as the shingles become more brittle. Never force or drop shingles in cold weather as they may crack or break.

If shingles are installed during the colder months, the tabs of the shingles should be sealed down manually using BP Multi-Purpose Plastic Cement as the sun is not warm enough to activate the adhesive strips.

NOTE: The amount of plastic cement used when sealing down shingles should not exceed two spots under each tab, no larger, or thicker than a quarter.

[What are the black streaks on my roof?](#)

Algae on roof

Usually visible on North-facing light-colored roofs ranging from five years old, discoloration or streaking is sometimes mistaken as dirt, moss, or granule loss. It is actually caused by algae growth that propagates in areas of the roof that receive less direct sunlight, and thereby retain a higher level of moisture. Although most noticeable on light shingle colors, the algae affects all asphalt shingle roofs, including darker colors. The discoloration caused by the algae is in no way indicative of a shingle defect. This is an aesthetic concern and will not harm the shingle or shorten the life of the roof. The algae discoloration is difficult to remove from roofing surfaces, but may be lightened using various solutions available at most lumberyards.

Notes:

Cleaning the shingles is a temporary solution as it will eventually grow back due to higher humidity levels in areas of limited exposure to direct sunlight. The cleaning process will have to be repeated every few years.

Care must be taken when cleaning the algae as to not remove excessive amounts of granules that are attached to the surface of the shingles.

[What are the aging signs in shingles?](#)

Aging signs in shingles

All shingles, whether organic or glass based, will be subjected to UV rays from the sun, causing the asphalt coating to dry, loosening the granules covering in the long run. Other visible signs are pieces of torn shingles, curled tab corners as well as centerline cracks.

[Is it necessary to remove the plastic cellophane tape on the back of shingles?](#)

Plastic cellophane tape on back of shingles

It is not necessary to remove the plastic cellophane tape that is applied on the back of shingles. This tape is applied during the manufacturing process and prevents the shingles from sticking together in the package.

[How do I measure the slope \(or pitch\) of my roof?](#)

How do you measure Slope(Pitch)

Set one end of a 12" level on the roof surface – make it level. Take a tape measure from the other end down to the surface of the roof. This will give you the slope of the roof. For example, a roof rising 4-inches for each horizontal foot has a 4/12 slope. Slope is also sometimes referred to as "pitch".

The greater the slope, the more material will be required to complete the installation of the roof, hence the slope factor. The slope factor multiplied by the area of the roof will give you the number or sq. ft. to be covered.

[How do I clean my tile roof?](#)

How to clean a tile roof

When algae, mildew or moss forms on your tile roof, you can seek out a roof cleaning, painting company to clean the surface of your tile.

The following method is recommended to properly pressure clean the surface of your roof to remove the dirt, algae, mildew or moss. Some differences in method may be used depending on whether your tile is slurry coated or through color. In most applications, though, a pressure cleaner set at approximately 1200 psi should be used. The tip of the nozzle of the pressure cleaner should be kept approximately one to two feet from the tile. The limited pressure and distance from the tile is used to prevent damaging the surface.

Most modern pressure cleaners have an induction system to deliver a 10% solution of chlorine to water. This will help remove, temporarily, the mildew, algae or moss while using the recommended reduced pressure.

If you want to coat the roof tile after the roof has been pressure cleaned, it is recommended that the roof be primed with a clear alkyd primer, following the manufacturer's recommendations for application and curing.

If you also want to change the color of your roof by painting it, the surface should be painted with a good quality 100% acrylic paint, after the pressure cleaning and priming is completed and dried.

If you don't want to change the color of your roof tile, you may have the surface coated with a 100% clear acrylic sealer after the pressure cleaning and priming.

[Can you walk on your tile roof?](#)

Walking on Roof

While walking on any roof surface should be avoided or kept to a minimum, occasionally it may be necessary. Caution should be exercised not only to ensure your personal safety, but also because most manufacturers specifically do not warrant tile breakage due to foot traffic on the roof.

If tiles are broken during trafficking, they should be replaced as soon as possible to avoid damage to the underlayment from water or exposure to the ultraviolet rays of the sun.

To avoid breaking tiles, there are certain methods of traversing the roof that may minimize damage. Typically, it is recommended to step at the bottom three inches of the installed tile. This is the portion of the tile that is supported by the lapped tile beneath it and the weight is then transferred through it to the deck below.

Orient your feet in a direction parallel with the ridge and try to distribute your weight evenly and walk as softly as possible.

On S shaped tiles, it is recommended for you to distribute your weight with the heel and toe on the high points of adjacent tiles.

Another option that proves helpful, particularly when a work task may distract you, is to use walk pads to distribute weight over a larger area you may be working on.

Pads may be fabricated in a number of ways but are typically made from sheets of plywood cut into 2' X 2' sections. The underside of these pads can then be fitted with softer material such as carpet or rigid foam that will help spread the weight and prevent slippage.

It is also recommended to stay away from hips or valleys to avoid breaking specially cut tiles that would be more difficult to replace. The exception to this would be in situations where the hips and ridges are attached by being bedded in either mortar or foam, in which case, they may be preferred walking paths.

Valleys can also be ideal access paths, if the tiles are cut away from the center of the valley wide enough to allow foot traffic on the valley flashing instead of the tile. Take special care when walking on valley flashing, as the metal can be slippery.

Keep in mind that activities such as gutter cleaning and holiday light hanging can be accomplished by ladder from the ground up, rather than walking your roof. Ladder braces may be attached to avoid damage to your gutters and tile.

[Why is my roof leaking?](#)

Roof Leaks

Leaking roof: Normal weathering of asphalt roofing shingles will not cause leaking. Causes:

Flashings are crucial areas that must be watertight to avoid leaks. These are the areas most frequently identified as the causes of leaks.

Damaged shingles leave the roof exposed to leaks and should be repaired without delay.

When installing shingles take note of the alignment of the cutouts, depending on the type of BP shingle chosen, as well as the nailing location as these areas are crucial to the ease with which water can infiltrate a roof. They should always be covered by overlying shingle tabs.

Inadequate ventilation can cause ice damming, frost and condensation accumulation. These problems can all be easily prevented with proper air circulation.