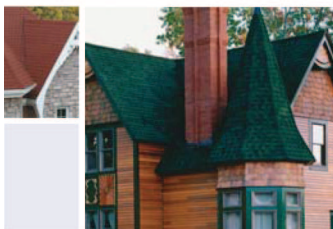




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# BLUEPRINT for ROOFING



**shingle application guide**

Laminated Design & Traditional 3-Tab Design

St. Catharines - Port Colborne - Hamilton - London - Sarnia - Kitchener - Oakville



## shingle application guide

LAMINATED DESIGN & TRADITIONAL 3-TAB DESIGN

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## INTRODUCTION

**You can re-roof your own home with the help of this easy-to-follow visual presentation.**

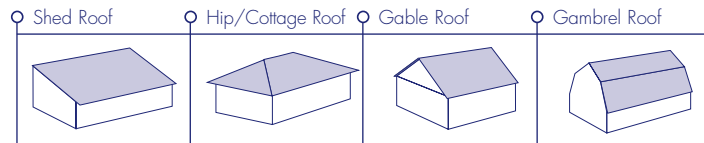
Using a simplified step-by-step approach, you'll be able to save the cost of contract labor and still obtain professional results — along with the personal satisfaction of a job well done.

### Here's what you do!

- Play the program through completely.
- Play it a second time and compare the information with the booklet, installation instructions printed on the bundle wrappers and information available through our web site: ► [www.iko.com](http://www.iko.com)

## PART 1 Roof Types and Definitions

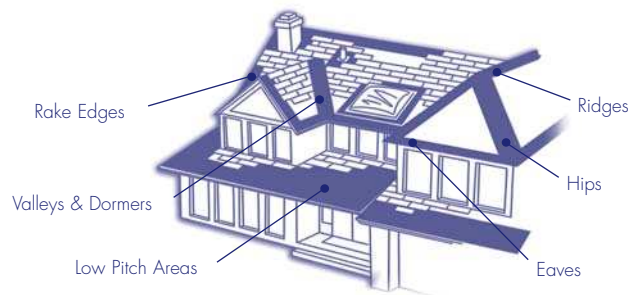
**Most homes will have one of these roof styles:**



4

**Every roof has similar features. For example, the ridge is at the top.**

The eaves are the horizontal, lower edges of a sloped roof. The rake is the inclined edge of a Gable Roof. The hip runs from the ridge to the eaves on a Cottage Style Roof. A valley is the intersection of two sloping roof planes.



**Calculations for square footage of the roofing surface can be made by simply adding up the areas of the various roof sections.**

The sum of the total area is then divided by the coverage of each bundle of shingles. Typically, an average 3-Tab bundle covers 32.3 or 33.3 sq. ft., while our Architectural shingle bundles vary between 25 and 34 sq. ft. It is advisable to add 10% to this area for material waste or loss.

When using underlayment, the square measure of the roof may be used again to determine the number of rolls of underlayment required. We recommend our No. 15 Plain Asphalt Felt for this job.

Drip edging requirements are determined by measuring the lengths of the eaves and rake edges. An open metal valley flashing is recommended for the protection of valley areas. Depending on the roof design and the shingle chosen, closed cut and woven valleys may also be acceptable.

For ice dam protection along the eaves (or anywhere that is susceptible to water penetration), you'll need IKO's GoldShield Premium Ice and Water Protector, ArmourGard Ice and Water Protector, or ProTecto Standard Ice and Water Protector.

**Asphalt plastic cement is used to seal at vents, stacks, or chimneys.**



IKO's Ice & Water Protectors are modified bitumen roll roofing products with a self-adhesive backing that, once applied correctly, will provide superior protection against wind-driven rain and ice dams.

Galvanized roofing nails are the best fastener to use for roofing, and they should be long enough to penetrate through the shingles and into the deck approximately 3/4 of an inch, or through the deck if it is plywood. Nails no less than 1/4" longer will be required for capping the hips and ridges.



**Proper and safe tools are the key to any successful job.**

- Ladders should always be sturdy and long enough to reach the roof area at the proper angle, approximately 1/4 of the vertical height out from the wall, and should extend about 3' above the eaves. Make sure your ladder or scaffolding is tied off at the roof edge and all locking devices are secured.
- Vertical and horizontal chalk lines are applied to ensure accurate shingle alignment over the roof surface.
- The roofing knife blade is hooked for cutting and fitting asphalt shingles.
- The hammer may either be a well-balanced claw hammer or a specially designed roofer's hatchet.
- You will also need a nail apron and perhaps a pair of knee pads.
- A caulking gun, putty knife or trowel is used for applying the asphalt plastic cement.
- Tin snips will be used to cut metal flashing materials.
- A circular saw may be required for repairing or replacing damaged decking.
- A pry-bar is a handy tool for lifting hard to get at shingles and flashings.
- A square-edge shovel or a pitchfork are excellent tools for removing old shingles. And a good-sized waste receptacle should be placed conveniently below the area being worked on.



Be aware of those working with and around you. Make sure that everyone knows how to properly use the tools of the trade, both manual and power.

## PART 4 Safety

### **Proper preparation and careful attention to what you are doing are important considerations for any undertaking.**

Inspect the job site for possible hazards such as unstable ground conditions, or overhead electrical lines. Do not attempt to work in bad weather or on wet surfaces.

Protect shrubbery, air conditioners, bay windows or other protrusions from falling debris by using tarps or sheets of plywood.

Certain jurisdictions may require the shingle applicator to use fall-arrest safety equipment when on roofs of certain heights and slopes.



Keep your safety equipment clean and in working order. When not in use, store your equipment in a safe place. You will want to be able to tie-off on steep roofs without worrying that a frayed rope or strap will break.

Consider contacting your local building or labor department for more information. Make sure you have proper footwear for good traction. Rubber-soled shoes are best. And never work alone. Avoid leaning away from the ladder to work and remember to tie it off to the eavestroughing each time it is moved. Keep the work area free of debris, which is a constant tripping hazard.

### **Consider a trained professional roofer if the roof is steep!**

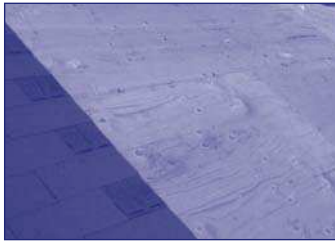
## PART 5 Deck Preparation & Roof Repair

If the old shingles are to be removed, it's recommended to strip one roof plane at a time and work in these sections through all steps up to and including the roof shingles. Start in the section farthest from the disposal bin so as not to walk on newly laid shingles.

### **The deck must be dry for the job.**

Be sure that all old nails are removed or hammered down flush to the deck surface. It is essential to make all necessary repairs to the existing roof deck.

**A warped or uneven surface is difficult to work with during the re-roofing job and creates an unprofessional looking finished project.**



A deck built with plywood panels generally works well with asphalt shingles.

The deck should be applied in a staggered pattern, bridged across roof rafters or roof trusses. Replace rotted, damaged, or warped sheathing or delaminated plywood. If the entire deck is to be replaced, check the building codes to determine the required thickness and type of sheathing required in your municipality. Dimensional lumber is subject to expansion and contraction caused by temperature and humidity changes.

**To avoid buckling shingles, you should cover a dimensional lumber deck with an inexpensive sheathing. Our Limited Material Warranty does not cover buckling.**



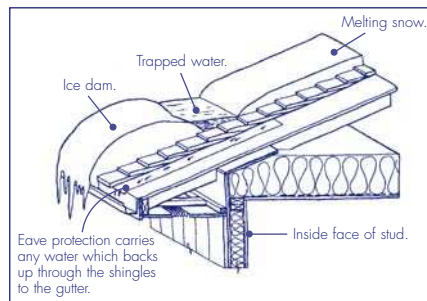
Bad decks can cause shingles to distort and/or buckle.

**Soil stack and vent flashings can be used again if they're in good condition, but you should consider replacing them with new ones.**

## PART 6 Drip Edges, Eave Protection & Underlayment

Metal or plastic drip edge material nailed every 12" may be applied to protect wooden edges from damage and to facilitate water run-off into the eavestrough.

Apply IKO's GoldShield Premium Ice and Water Protector, ArmourGard Ice & Water Protector, or ProTecto Standard Ice and Water Protector as ice dam protection along the eaves. For ideal protection, Ice & Water Protector should extend up the roof, 24" from the inside face of the exterior wall, and over the drip-edging. Ice & Water Protector, a modified bitumen product, has a sticky back surface covered with a release film, which makes installation easy.



Ice dams form when melted snow runs down the roof to the eaves and freezes again, which force water back up underneath the shingles.

Next, install the underlayment, overlapping the GoldShield, ArmourGard or ProTecto by 4". Please note that a felt underlayment or equivalent, is required beneath fiberglass shingles applied to slopes below 8:12. Also, certain organic shingles require underlayment felt. Please refer to the IKO Asphalt Shingle Limited Warranty or the bundle wrappers for further details.

Underlayment comes in rolls. It must be unrolled, cut to convenient lengths, and laid out flat until completely relaxed before shingles are applied over it.

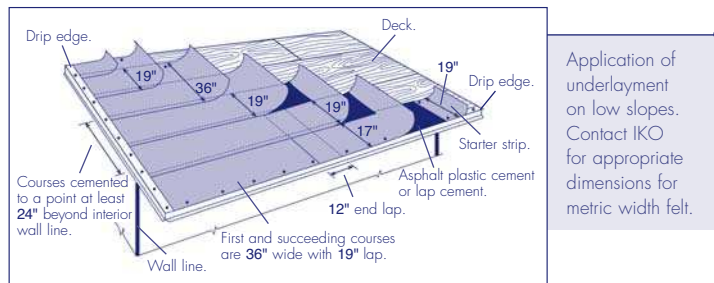


Water resistant underlayment felts are recommended for a sound roofing system.

Use only enough nails to hold each run in place, overlapping the course below by approximately 2" and ends by 4". Never use a piece less than 6' in length. Underlayment should overlap hips and ridges by 6", and approximately 4" extensions should be left at the chimney and any vertical projection from the roof surface.

**Apply metal drip edges over the underlayment at rake edges.**

For slopes between 2:12 and 4:12, that is between 2" of rise to 12" of run and 4" of rise to 12" of run, shingles may be applied. However, in order to validate the Limited Material Warranty, a full layer of an Ice and Water Protector or two layers of No. 15 plain felt, cemented together to 24" beyond the interior wall line, and then nailed for the rest of the roof, must be applied to roofs of these slopes. For shingled roof slopes between 2/12 and 3/12, we offer a 12-year Limited Warranty, regardless of the shingle applied. If this same application procedure is followed for roof slopes between 3/12 and 4/12, a full Limited Material Warranty will be offered.



**Please note that IKO's Ice and Water Protectors are vapor retarders. The space under the roof deck must be properly ventilated to avoid moisture condensation.**

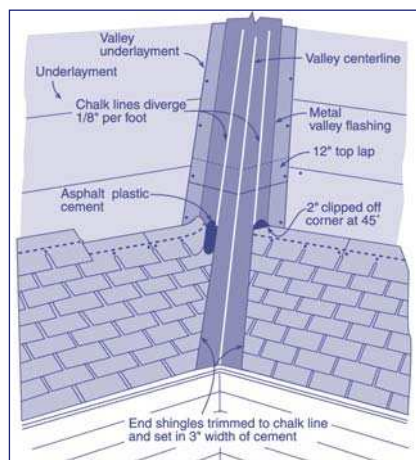
The only shingles that we will not warrant when they are applied below 4/12 are UltraLock 25, Armour Lock 20, and IKO Regency.

## PART 7 Valley Construction

**There are several different valley application methods, which include closed, open, and woven.**

For longer roof performance, open metal valleys are recommended. Complete the application of underlayment and valley flashing before the shingles are applied. Center a 36" width strip of smooth surface roll roofing in the valley. Or for best protection, use Ice & Water Protector in the valley. The product is tacked in place temporarily along its non-stick edge. Carefully peel away the backing, and put it in place, smoothing out any wrinkles. Start working from the eave, allowing additional pieces to overlap by at least 6". Remove the temporary nails.

Center a minimum 24" wide, minimum 28 gauge pre-finished/galvanized metal valley liner in the valley, and fasten with only enough nails to hold it in place, nailing at the edges only. Overlap each metal piece by at least 6" and use asphalt plastic cement under each section of overlap. Snap two chalk lines the full length of the valley, 6" apart at the top and increasing in width 1/8" per foot towards the bottom to a maximum of 8". When the shingles are being applied, lay them over the valley flashing, trim the ends to the chalk line, and cut a 2" triangle off the top corner to direct water into the valley. Embed the valley end of each shingle into a 3" band of asphalt plastic cement, and nail the shingles 2" back from the chalk line.



Open Valley Application.

**For esthetic reasons, you may wish to create a closed valley.**

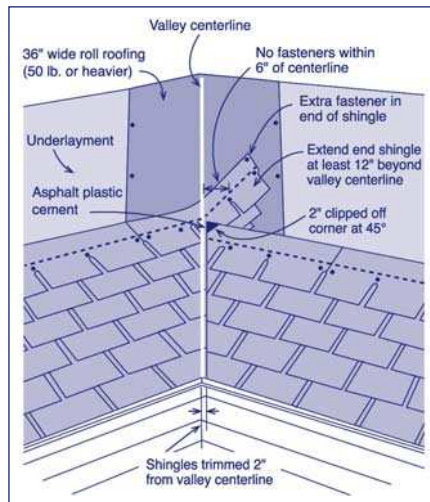
Again, center a 36" width strip of smooth surface roll roofing in the valley, or Ice & Water Protector.

Lay each course of shingles so that they cover at least 12" on both sides of the valley. You may have to shorten some of the shingles in each course to ensure there are no shingle joints within the valley area.

**Nail carefully, ensuring you nail no closer than 6" to the center of the valley.**

Once you have completed one roof plane, snap a chalk line 2" from the center of the valley to mark the edge of the adjoining plane.

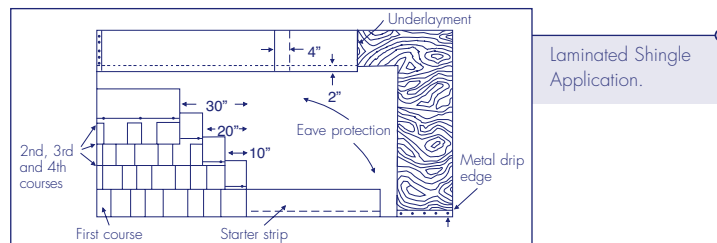
Apply the shingles on the other plane, again ensuring no nails are placed closer than 6" from the center of the valley. Trim each overlapping shingle along the chalk line, and cut a small triangle from the headlap area of the shingle to direct water into the valley. Imbed the outer 3" of the headlap area in asphalt plastic cement.



Closed Cut Valley.

## PART 8 Application of Laminated Shingles

For the starter strip, we recommend using IKO Leading Edge, a starter course shingle that has already been cut to size. If Leading Edge is not available in your area, begin by cutting off the tabs of a 3-tab shingle along a line level with the top of the cut-outs, and install the starter course with the factory applied sealant adjacent to the eaves, overhanging the rake edge and eaves by no less than 1/4" to 3/8".



Start the first course with a complete shingle applied flush with the eave and the starter course and offset from the starter course by at least 4". This prevents the joints in the starter course from coinciding with joints between first course shingles. Use 4 nails, placed along the chalk line marking the nailing strip, starting at one end, and nailing toward the other. Complete nailing instructions can be found on the bundle wrapper.

Start the second course 10" back from the edge of the starting shingle. Align the bottom edge of the shingles with the tops of the saw teeth of the shingles in the underlying course. Each succeeding course will also be started 10" from the course below. For laminated shingles, this offset produces the most pleasing pattern. Choose shingles selectively, to avoid lining up the teeth in succeeding courses. Continue each course across the roof with full shingles, butting the ends loosely.

**It's a good idea to snap horizontal chalk lines every four or five courses, to ensure horizontal alignment across the roof.**

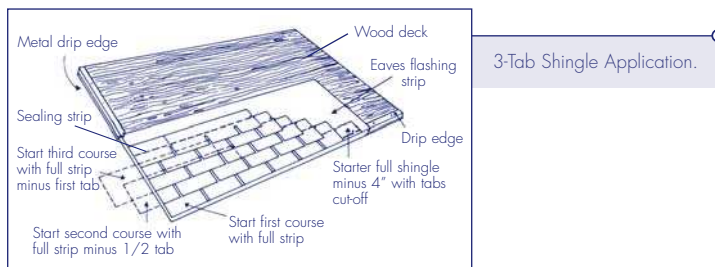
If the shingles are to be applied to steep slopes or in a high wind area, it is advisable to use 6 nails and asphalt plastic cement to secure each tab.

The amount of cement used should be about the size and thickness of a quarter. Please note that excessive use of cement may cause blistering. Refer to the product label for specific application details.

Also, when application conditions might limit the effectiveness of the sealing strip (such as in cool weather), shingle adherence should be ensured through the use of asphalt plastic cement, applied according to the directions listed on the shingle bundle wrapper.

On long runs, or on hip roofs, snap a vertical chalk line in the center of the run and apply shingles to the left and right of the line.

For the starter strip, we recommend using IKO Leading Edge, a starter course shingle that has already been cut to size. If Leading Edge is not available in your area, trim off the shingle tabs from a 3-tab shingle so that the sealant is at the bottom of the eave edge.



3-Tab Shingle Application.

Place the edge of the first starter strip a few inches past the chalk line, so that cut-outs in first course shingles do not fall on starter strip joints, overhanging the drip edge and underlayment by no less than  $1/4$ " to  $3/8$ ".

You should take steps to minimize the effects of shading variations as you work. Space several bundles around the working area and draw from each of the bundles randomly as the work progresses.

The first course starts with a full shingle aligned with the chalk line and the lower edge of the starter course. Use four nails to secure each shingle. Nails should be placed below the sealing strip and above the tops of the cut-outs. Apply the nails starting at one edge, and nailing to the other.

**Drive nails straight and don't break the shingle surface with the fastener head.**

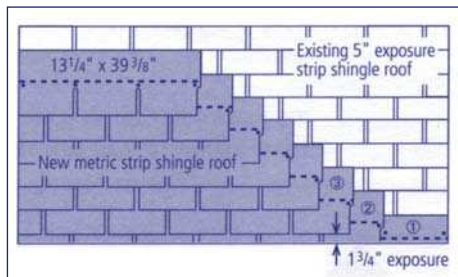
Each course will start half of a tab back from the course below. Additional vertical chalk lines will assist you in keeping the tab cut-outs vertical all the way up the roof.

Lay each shingle just down to the tops of the cutouts in the previous course. This pattern is followed all the way up the roof. Horizontal chalk lines every four or five courses will ensure your courses are running parallel.

## PART 10 Re-Roofing

**If you feel that your roof deck is in good condition and needs no repair, you can re-roof over the existing layer of shingles. For best results, we recommend a technique called “nesting”.**

Nesting, which minimizes an uneven appearance that can be caused by the underlying material, may also be used when applying metric-size shingles over an existing roof of metric shingles.



Nesting application of metric strip shingles over 5" exposure 3-tab shingles.

1. Starter strip 5" wide
2. First course 10" wide
3. Second and succeeding courses full-width shingles

If the old shingles have only a 5" exposure, you will require 12.5% or 1/8 more material than you would if you stripped off to the deck.

Begin with a "starter" strip. Remove the tabs plus enough from the top of the starter strip so that the remaining portion is equal in width to the exposure of the old shingles.

Apply the starter strip so that it is even with the existing roof at the eaves, locating the factory applied adhesive along the eaves edge.

Remove 4" from the end of the first starter strip shingle to ensure that joints between adjacent starter strip shingles will be covered when the first course is applied.

For the first course, you need to trim enough material from the tabs of the shingles to allow them to fit between the bottom of the tabs of the old third course and the eave edge of the new starter strip.

Start with a full length shingle. Use 4 nails per shingle placed about 5/8" above each cut-out and approximately 1" in from each end. You will require slightly longer nails, in order to penetrate through the old shingles and the roof deck.

For the second and all succeeding courses, offset the shingles by one half tab from the end of the shingle in the course below.

Place the top edge of the new shingle against the bottom edge of the tabs of the old shingle in the course above.

**Although the exposure of the first course is reduced when using this method, this will not be noticeable when viewed from the ground.**

For valleys, you must first build up the exposed metal area with IKO's Mineral Surface Roofing or Roof-Fast to a level flush with the old shingles.

Center a minimum 24" wide, minimum 28 gauge pre-finished/galvanized metal valley liner in the valley, and fasten with only enough nails to hold it in place, nailing at the edges only. Overlap each metal piece by at least 6" and use asphalt plastic cement under each section of overlap. Snap two chalk lines the full length of the valley, 6" apart at the top and increasing in width 1/8" per foot towards the bottom to a maximum of 8". When the shingles are being applied, lay them over the valley flashing, trim the ends to the chalk line, and cut a 2" triangle off the corner to direct water into the valley. Embed the valley end of each shingle into a 3" band of asphalt plastic cement, and nail the shingles 2" back from the chalk line.

**Special attention is required when working with existing flashings.**

If the existing flashing is in good condition, continue applying the new shingles over the existing shingles. Trim the new shingles to within 1/4" of the existing step flashing. Embed the last 3" of these shingles in asphalt plastic cement.

If the flashings need to be replaced, remove the counter flashing, cut away the old shingles covering the step flashings, and remove the flashing. Build up the areas of the exposed roof deck to a level even with the old shingles before applying new step flashings.

**When applying the new shingles, each shingle course will be covered by a step flashing.**

Flashings need to be at least 5" high, and 5" wide. Each flashing should overlap the one below by at least 3", but not be visible below the shingle top lap.

## PART 10 Re-Roofing

Imbed each step flashing in a 3" wide application of asphalt plastic cement, and nail in place. The end of each shingle overlapping a step flashing is also well embedded in plastic cement. Remember to reinstall counter-flashing over the step flashings.

Existing vents and flashings around soil stacks may be used again, but it's recommended that new flashings and vents be installed. Using the hooked blade knife, cut through the old shingles around the perimeter of the flashing apron and remove them. Fill in this space with a double layer of shingles.

Apply courses of new shingles up to the hole in the roof deck. Cut away the shingles to reveal the hole. Plastic cement is applied at the edges and then the vent is nailed firmly in place. Continue shingling, cutting to fit around the vent. The cut shingles should be laid in a bed of cement.

Pipe flashings are installed in a similar fashion and asphalt plastic cement is used to seal the pipe. Nails used to secure flashings to the roof should be used sparingly and not be driven close to the pipe.

**A dab of plastic cement over the exposed nails is recommended to avoid leakage.**

Hips and ridges are simple. Just remove the old hip and ridge caps and apply shingles up to a hip or ridge from both sides of the roof. To make ridge caps, cut strip shingles into individual pieces by dividing at the cut-outs. Taper the headlap portion of each shingle slightly so that it is narrower than the exposed portion. In some markets IKO offers specially made ridge cap shingles.

To apply the capping, bend three pieces at a time along the center line so that they will extend an equal distance on each side of the hip or ridge.

**In cool weather, remember to warm these shingles before use.**

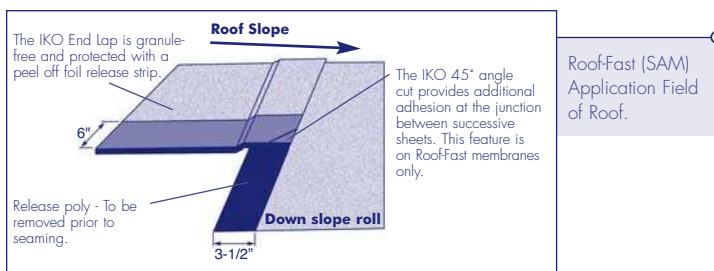
Begin at the bottom of the hip or from the end of the ridge opposite the direction of the prevailing winds. Apply nails 6-1/8" above the butt edge or 5-5/8" for imperial-sized three tabs, 1" in from each side, exposing each piece 5-5/8" or 5-1/8" for imperial-sized three tabs, to the weather.

For slopes between 2:12 and 4:12, that is between 2" of rise to 12" of run and 4" of rise to 12" of run, shingles may be applied. However, in order to validate the Limited Material Warranty, a full layer of an Ice and Water Protector or two layers of No. 15 plain felt, cemented together to 24" beyond the interior wall line, and then nailed for the rest of the roof, must be applied to roofs of these slopes.

For shingled roof slopes between 2/12 and 3/12, we offer a 12-year Limited Warranty, regardless of the shingle applied. If this same application procedure is followed for roof slopes between 3/12 and 4/12, a full Limited Material Warranty will be offered.

The only shingles that we will not warrant when they are applied below 4/12 are UltraLock 25, Armour Lock 20, and IKO Regency.

An alternative for these slopes is IKO Roof-Fast, a peel-and-stick granulated roofing membrane specifically designed to suit the requirements of low sloped areas. After applying metal drip edging, prime the area to be covered with a suitable asphalt primer, and allow sufficient time for the primer to set.



Remove the backing, and smooth out the Roof-Fast over the primer. For vertical seams, remove the release foil, and imbed the end of the Roof-Fast over the exposed adhesive. Peel off the release film and nail the Roof-Fast in a staggered pattern every 4". Overlap the horizontal seams by the width of the release film.

**Never apply asphalt shingles to roof slopes below 2:12.**

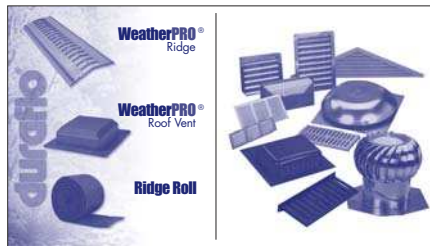
## PART 12 Ventilation

**Proper ventilation is necessary to avoid condensation problems that may cause dampness to rot the roof deck and distort the roofing materials.**

The air in your home is laden with moisture from cooking, laundry, bathing, the respiration of plants and animals and the evaporation from plumbing fixtures. Much of this air finds its way into the attic.

If your attic is under-vented, your roof rafters or trusses, roof deck and shingles are invaded by the moisture. This will reduce the life of the asphalt shingles. To minimize these problems, it is important to have proper ventilation.

There are several venting products on the market today that work well at the ridge of the roof. Duraflo® manufactures ventilation systems including WeatherPro® Ridge, WeatherPro® Roof Vent and Ridge Roll. Ask your local distributor for more information.



Roof vents come in different shapes and sizes. Duraflo® manufactures ventilation systems including WeatherPro® Ridge, WeatherPro® Roof Vent and Ridge Roll. Never mix different type of vents on the same roof.

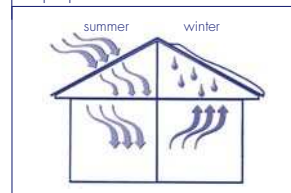
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When determining the need for additional vents, a ratio of 1 sq. ft. of net free area for every 300 sq. ft. of insulated ceiling area, divided in equal proportions between the soffits and the peak of the roof, is required by most building codes. 1 sq. ft. of net free area for every 150 sq. ft. of insulated ceiling area is required for low sloped roofs. The net free area is usually stamped right on the vent by the manufacturer.

○ Proper ventilation.



○ Improper ventilation.



For more information, visit our web site at : ► [www.iko.com](http://www.iko.com)  
or contact Technical Support for residential products at: **1-800-387-2318**  
**in the U.S. or 1-800-268-0878 in Canada.**

For new roof vents, a hole should be cut the same size as the vent. Ideally, you should center a 3' by 3' section of one of IKO's Ice and Water Protectors over the new vent hole.

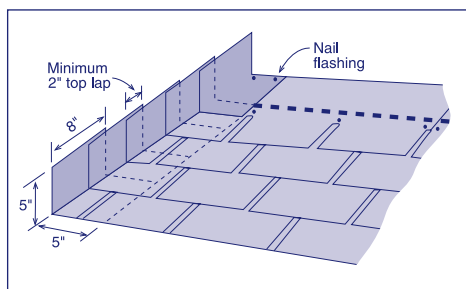
Cut away any Ice and Water Protector now covering the hole. Shingle up to the bottom of the vent opening, and remove any shingle material that may be covering the hole.

Apply plastic cement around the edges and nail the vent securely in place.

Continue shingling, cutting to fit around the vent. Each cut shingle should be laid in a bead of cement. A dab of plastic cement over the exposed nails is recommended to avoid leakage.

See Part 14 for further information on ridge ventilation.

Roof planes that butt against vertical walls at the end of the shingle course are protected by metal step flashing at least 5" high and 5" wide. When applying the new shingles, each shingle course will be covered by a step flashing. There are two simple rules to follow: Each flashing should overlap the one below by at least 3", but not be visible below the shingle top lap. Imbed each step flashing in a 3" wide application of asphalt plastic cement, and nail in place. Then the end of each shingle overlapping a step flashing must also be well embedded in plastic cement.

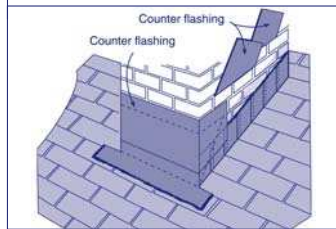


Flashing installation.

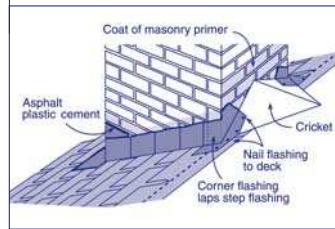
## PART 13 Flashings

Chimney base flashings are secured to the roof over top of the shingles and counter or cap flashings are secured to the chimney, providing a waterproof seal.

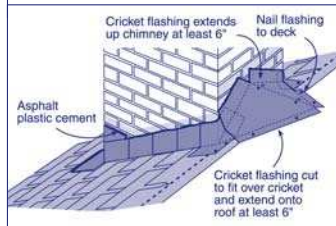
○ Flashing at front and side of chimney



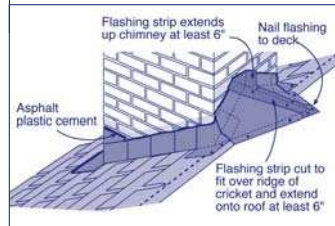
○ Application of corner flashing at rear of chimney



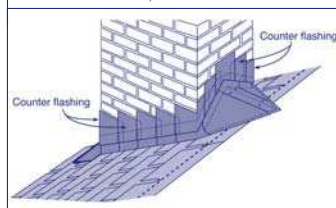
○ Application of flashing over cricket



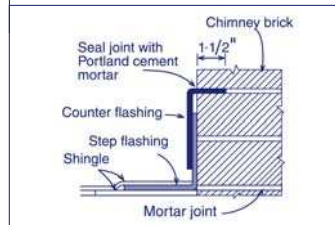
○ Application of flashing over ridge of cricket



○ Application of counter flashing at side and rear of chimney

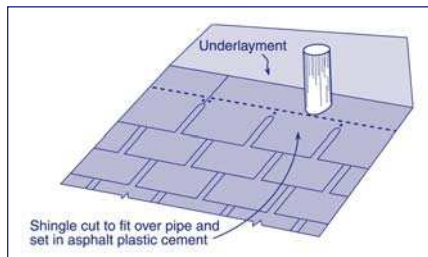


○ Application of counter flashing

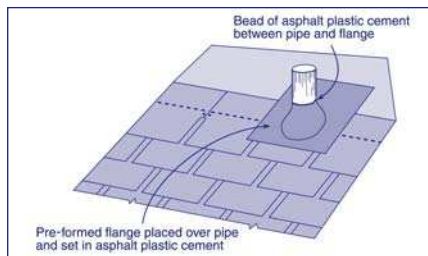


For pipe flashings around soil stacks, shingle up to the bottom of the stack. Apply plastic cement around the edges, then slide the new flashing over the soil pipe and into place. Nails used to secure flashings to the roof should be used sparingly and not be driven close to the pipe.

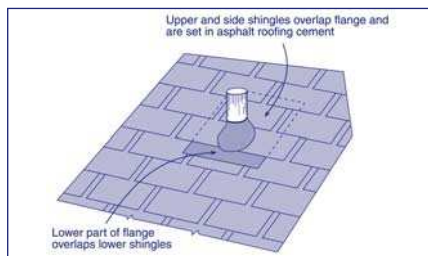
Continue shingling, cutting to fit around the stack. Each cut shingle should be laid in a bead of cement. A dab of plastic cement over the exposed nails is recommended to avoid leakage.



Application of shingle over vent pipe.



Application of flange.



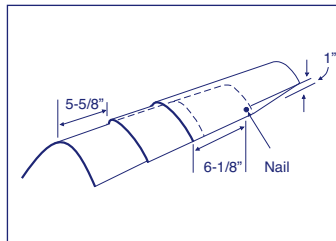
Application of shingles around flashing.

Apply shingles up to a hip or ridge from both sides of the roof before finishing the intersection.

In some markets IKO offers specially made ridge cap shingles. To make ridge caps, cut strip shingles into individual pieces by dividing at the cut-outs. Taper the headlap portion of each shingle slightly so that it is narrower than the exposed portion.

## PART 14 Hips & Ridges

To apply the capping, bend three pieces at a time along the center line so that they will extend an equal distance on each side of the hip or ridge. In cool weather, remember to warm these shingles before use.



To apply the ridge shingles, bend each shingle along the centerline so that it will extend an equal distance on each side of the hip or ridge.

Begin at the bottom of the hip or from the end of the ridge opposite the direction of the prevailing winds. Apply nails  $6\text{-}1/8\text{'}$  above the butt edge or  $5\text{-}5/8\text{'}$  for imperial-sized three tabs,  $1\text{'}$  in from each side, exposing each piece  $5\text{-}5/8\text{'}$  or  $5\text{-}5/8\text{'}$  for imperial-sized three tabs, to the weather.

When applying 3-tab shingles to the hip and ridge areas of a laminated shingle roof, you may wish to obtain a three-dimensional look, which is recommended but not required. Do this by stacking two pieces on top of one another, slightly off-setting the shingles  $3/4\text{'}$  in exposure. For Renaissance XL shingles, use only those tabs where the overlay patch does not lie directly in the center of the tab.

Several manufacturers now supply specialized ridge vents. To use these vents, install shingle courses up the roof to the ridge so that the ridge caps will cover the sealing strip on both faces of the roof at the ridge.

Cut away the roof decking to reveal  $1\text{'}$  of space on both sides of the ridge joist. At both ends of the ridge, apply ridge caps as already outlined, to cover at least  $12\text{'}$  of the ridge. Center the ridge vent over the ridge, and overlap the installed ridge caps so that the nails and sealing strip are covered. Nail to the deck using the nailing marks supplied by the vent manufacturer.

Beginning from the end of the ridge opposite the direction of the prevailing winds, apply ridge caps over the ridge vent, exposing each piece in the same manner as before. Nail the caps to the ridge vent following the nailing guide on the vent, as provided by the vent manufacturer.

**Before leaving the job, it is necessary to clean up all debris from the roof, valleys and gutters.**

Remove the protective tarps you laid down earlier to easily get rid of old shingles, wrappers, granules and nails. It's recommended you flush out eavestroughs to ensure unobstructed water flow, and to give your job a professional finish. The use of a magnetic sweeper is recommended to rid the yard and driveway of nails and metallic debris.

**Congratulations! We knew you could do it.**

While your roof will provide years of protection, there are some aspects of continuing roof care that you should be aware of to ensure maximum roof performance.

Keep gutters and roof surfaces clear of all debris. This will allow water to flow freely off the roof. Keep trees trimmed to prevent damage from branches scuffing the roof surface. Keep other growths, such as vines, back from the roof.

Make semi-annual inspections of the roof to evaluate its general condition in terms of potential leakage problems. The best time for this is in the spring and fall after the severe weather conditions have passed.

Inspect the underside of the roof deck from the attic to detect leaks. Flashings are the most vulnerable points. Water stains will be evident if there has been some leakage or severe condensation.

## PART 17 Products

IKO manufactures a full line of asphalt roofing shingles. These shingles feature either organic or fiberglass mats, and are available in several popular styles in a variety of colors. Often, roofing professionals in warmer climates choose fiberglass shingles, while contractors in cooler climates are more evenly divided in their preferences for fiberglass or organic shingles. Generally, with a well-ventilated and solidly constructed roof deck, and the shingle roof system is applied according to the manufacturer's installation instructions as well as commonly accepted roofing practices, both fiberglass and organic shingles will perform similarly.



IKO produces three styles of asphalt shingles:

- Architectural Style.
- Designer Style.
- Traditional Style.

**Now that you've seen how easy it is to re-roof your home, it's time to select the shingle that will exactly meet your requirements.**

We make the finest 3-Tab shingles on the market: Time-tested and true, IKO Traditional 3-Tab shingles are our most popular shingle design. The traditional 3-Tab design shingle gets its name from the three tabs incorporated into its profile. Aristocrat 25 and Armour Plus 20 are available in an organic base and Marathon Ultra, Marathon 25, 20 and Gentry Ultra AR and Gentry 25 series are available in a fiberglass base.

IKO Traditional 3-Tab shingles are available in a wide variety of colors and available with Limited Warranty lengths of 30, 25 or 20 years and limited wind warranty coverage up to 60 mph or 97 km/h.



Traditional 3-Tab shingle

### To help personalize the look of your home, choose IKO Designer Shingles.

When you're considering 3-Tab shingles, but want something a little more striking, IKO Renaissance XL and IKO Cathedral XL, are the perfect choice.



IKO Renaissance XL delivers the appeal of a laminated shingle with dramatic color blends.



IKO Cathedral XL uses accurate granule positioning and deep shadow bands to create the dimensional look of a laminated shingle. Both shingles are organic-based and available with Limited 25-year Warranties.

### Other Designer shingle options offered by IKO include;



IKO Royal Victorian to deliver a refined, elegant and bold "slate-like" appearance. This is highlighted in the scalloped-edge 6-tab premium fiberglass shingle, available with a Limited 25-year Warranty.



IKO Skyline 25 utilizes a unique "step" design to achieve a textured appearance, providing complete double coverage, weather protection, and high tear strength values. This heavyweight, organic-based asphalt shingle is available with a Limited 25-year Warranty.



For a geometric appearance, IKO Interlocking shingles are well suited for high-wind regions. UltraLock 25, with a Limited 25-year Warranty and Armour Lock 20 with a Limited 20-year Warranty are organic-based asphalt shingles that provide superior resistance to wind lifting and blow-offs, without special adhesives.



IKO Regency Laminated Designer shingles, boast a double layer construction for deeper shadow lines. This will give your roof the natural appearance of a rough-sawn, random-cut classic "shake" roof. This premium fiberglass based shingle comes with a Limited 50-year Warranty.

## PART 17 Products

### For dimensional thickness and strength, choose IKO Laminated Architectural shingles.



IKO Chateau, with its dual thickness and heavyweight construction provides an outstanding dimensional look. With deep blended shadow bands it simulates the look of a "shake" roof. This premium organic based shingle comes with a Limited 35-year Warranty.



Straight Cut  
**East**

The IKO Cambridge shingle series are laminated to provide a remarkable dimensional thickness, not only for strength, durability and weather resistance, but also to create an extraordinarily beautiful look to your home. These premium fiberglass shingles are offered with Limited 50, 40 or 30-year Warranties. IKO Cambridge 50 AR and 30 AR shingles feature an algae resistant system with a Limited algae resistance warranty. Depending on your location, Cambridge shingles are also available in an Eastern or Western cut style.



Angle Cut  
**West**



Angle Cut

IKO Grandeur, is our latest fiberglass architectural shingle. Spectacular appearance, strength and resilience describes our top-of-the-line Grandeur shingles. They're engineered to last and built to perform, offering superior resistance against thermal cycling and high winds. Its construction consists of a tough fiberglass mat base; saturated with proven durable oxidized asphalt for a strong foundation and coated with our unique IKO-SBS modified asphalt. Ceramic coated granules, including granules with a copper layer, are then securely adhered to the surface, providing an algae resistant layer of protection. This premium fiberglass based shingle comes with a Limited 50-year Warranty and features a Limited algae resistance warranty.

**All IKO shingles are quality manufactured to IKO's rigid specifications, using only the finest raw materials.**

IKO also offers a selection of roofing accessories, which include our Ice & Water Protection; GoldShield, ArmourGard and Protecto, Roof-Fast, various felts and IKO Leading Edge starter strips.

To aid in your shingle and color selection, you can also use the IKO ROOFViewer™ Interactive Shingle Selector Tool, available on-line and on CD.



IKO ROOFViewer™ is an interactive tool which allows the customer to easily select a shingle style and color to co-ordinate with brick or siding and trim. It's an easy way of finding out how your house will look with a particular shingle.

To ensure complete satisfaction, please make your final color selection from several full size shingles and view a sample of the product installed on a home.

Please note product availability varies by plant. For additional information on IKO's full line of superior roofing products, talk to your IKO dealer, contact Technical Support for residential products at:

**United States 1-800-387-2318,  
Canada 1-800-268-0878,**

or visit our web site at: ► [www.iko.com](http://www.iko.com)

Thank you for considering IKO Roofing Products.

**"Nobody Focuses on Roofing Like We Do."**

## GLOSSARY

**Algae Discoloration:** A type of black roof discoloration caused by algae. Sometimes referred to as fungus growth.

**Asphalt:** A bituminous waterproofing agent applied to roofing materials during manufacture.

**Asphalt Roofing Cement:** An asphalt-based cement used to bond roofing materials. Also known as flashing cement or mastic; typically conforms to ASTM D 4586 (Asbestos Free) or CGSB 37-GP-5MA.

**Backsurfacing:** Fine mineral matter applied to the back side of shingles to keep them from sticking together. IKO uses backsurfacing materials such as talc, dolomite and mineral fines.

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

**Bridging:** A method of re-roofing with larger-sized shingles.

**Bundle:** A package of shingles. There are typically 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.

**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 2" (50 mm) from the valley centerline. The valley flashing is not exposed.

**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 the 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 the accumulation of snow and ice, and to deflect water around the chimney.

**Cut-out:** The open portions of a strip shingle between the tabs.

## GLOSSARY

**Deck:** The wooden surface, installed over the supporting framing members, to which the roofing is applied.

**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.

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

**Exposure:** That portion of the roofing exposed to the weather after installation. For example, the exposure of IKO's Armour Plus 20 shingles is 5 5/8" (143 mm).

**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 28-gauge.

**Granules:** Ceramic-coated colored crushed rock that is applied to the exposed surface of asphalt roofing products. IKO makes its own granules at our Madoc, Ontario, and Ashcroft, British Columbia granule plants. Granules protect the asphalt coating from the sun's rays, add color to the product and enhance fire resistance.

**Gutter:** The trough that channels water from the eaves to the downspout. Also known as an eavestrough.

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

**Hip Shingles:** Shingles used to cover the inclined external angle formed by the intersection of two sloping roof planes. Normally IKO's 3-tab shingles are used to make hip shingles, but for some products, IKO makes specific hip and ridge shingles.

**Ice Dam:** Condition formed at the lower roof edge by the thawing and re-freezing of melted snow on the overhang. Can force water up and under shingles, causing leaks.

**Interlocking Shingles:** Individual shingles that mechanically fasten to each other to provide wind resistance, such as IKO's Armour Lock 20.

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

## GLOSSARY

or architectural shingles. IKO's Grandeur, Cambridge series, Chateau and Regency are all laminated shingles.

**Low Slope Application:** Method of installing asphalt shingles on roof slopes 2" (9.5°) - 4" (18.4°) 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.

**Mineral-Surfaced Roofing:** Asphalt shingles and rolled roofing that are covered with granules.

**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.

**Offset:** The distance between the edge of one shingle course and the edge of the next successive shingle course.

**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 that is used in the production of shingles and underlayment. IKO produces its own high quality felt at our Brampton, Ontario, and Calgary, Alberta felt mills.

**Racking:** Roofing application method in which shingle courses are applied vertically up the roof rather than across and up. Typically, this is not a recommended procedure.

**Rake:** The inclined edge of a sloped roof over a wall.

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

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

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

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

## GLOSSARY

**Self-Adhered Eave and Flashing Membrane:** A self-adhering bituminous waterproofing shingle underlayment designed to protect against water infiltration due to ice dams and wind-driven rain. IKO offers three Ice and Water Protector products: GoldShield, ArmourGard and Protecto, which are generally available in various sizes.

**Self-Sealing Strip or Spot:** Factory-applied adhesive that bonds shingle courses together when exposed to the heat of the sun after application.

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

**Slope:** The degree of roof incline expressed as the ratio of the rise, in inches, to the run, in inches. (e.g. 4:12 slope)

**Soffit:** The finished underside of the eaves, which should contain holes or perforations to provide air intake for attic ventilation.

**Starter Strip:** Asphalt roofing applied at the eaves that provides protection by filling in the spaces under the cut-outs and joints of the first course of shingles. IKO's Leading Edge is a pre-made starter strip product ideally suited for this application.

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

**Tab:** The exposed portion of strip shingles defined by cut-outs.

**Underlayment:** Asphalt saturated felt, such as IKO's AM 15 Asphalt Saturated Felt, used beneath roofing to provide additional protection for the deck.

**Valley:** The internal angle formed by the intersection of two sloping roof planes.

**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.

**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.





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