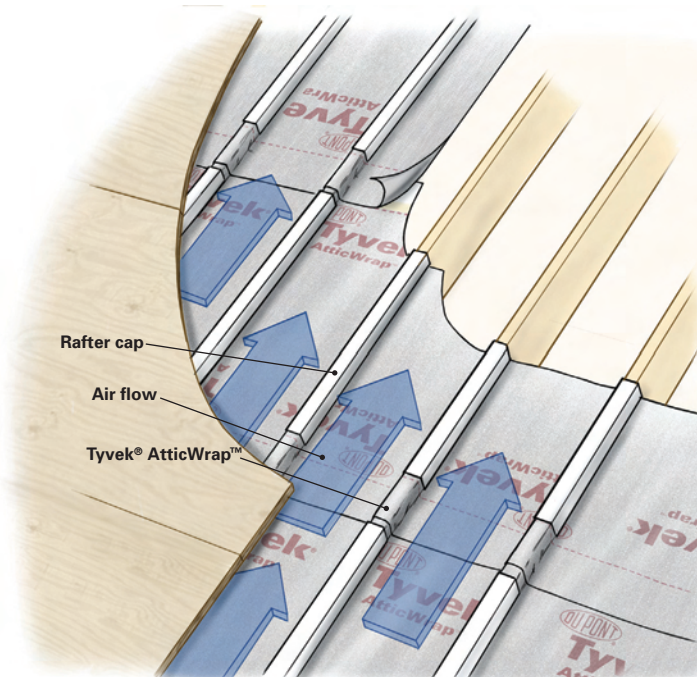


The Sealed Attic System with DuPont™ Tyvek® AtticWrap™

INSTALLATION USING RAFTER CAP METHOD



The miracles of science™



The Rafter Cap method uses “U” shaped plastic channels designed to fit tight over the top of rafters. DuPont™ RafterCap creates air vent channels by holding Tyvek® AtticWrap™ taut between the rafters about 1½ in. below the roof sheathing. Tyvek® AtticWrap™ wrinkles and bunches where the surface plane of the roof changes at rafter tails, hips, valleys and ridges. Extra care must be taken when detailing the membrane at these areas to maintain open vent channels.

The Rafter Cap method can be combined with the Drape method during installation.

The Rafter Cap method is compatible with any type of insulation, including direct contact, provided the Tyvek® AtticWrap™ membrane is taut between rafters.

Preparation: Select the Tyvek® AtticWrap™ eave detail you wish to use. Install the required framing, including subfascias, wall nailers, soffit blocking and rafter blocking.



DuPont™ RafterCap holds Tyvek® AtticWrap™ taut between rafters

STEP ONE

Apply the eave course of Tyvek® AtticWrap™:

Pre-cut one 6 in. piece of DuPont™ RafterCap for each rafter tail. Snap a chalk line parallel to the eave edge approximately 12 in. to 16 in. up from the rafter tails. Roll out about 6 ft. of Tyvek® AtticWrap™ with the integrated adhesive strip at the top. Align the top edge of the membrane with the chalk line and staple the end of the sheet to the first rafter. As one worker unrolls the Tyvek® AtticWrap™, a second worker places a rafter cap over each rafter. Nail or staple the rafter caps securely to the rafters. Keep the membrane taut between rafters and aligned with the chalk line. Do not place the rafter caps above the dotted overlap line at the top of the sheet.



Staple the rafter caps to the rafters

STEP TWO

Apply a full course of Tyvek® AtticWrap™:

After completing the eaves course, begin the first full course with the bottom edge of the roll aligned with the dotted line on the course below. Slide a full length DuPont™ RafterCap over the Tyvek® AtticWrap™ and rafter, centering the rafter caps between the “overlap” lines printed on Tyvek® AtticWrap™. Again nail or staple the rafter caps to the rafters to hold them securely in place.



Fasten the rafter caps to the rafters

STEP THREE

Seal Tyvek® AtticWrap™ layers:

Lift the bottom edge of overlying course and peel the release liner from the integrated adhesive strip on the course beneath. Press the layers of Tyvek® AtticWrap™ together along the integrated adhesive strip to create an airtight seal.



Seal the layers of Tyvek® AtticWrap™ together

STEP FOUR

Install roof sheathing over rafter caps:

Snap a chalk line across the rafter caps as a guide line for the top edge of the roof sheathing. Install roof sheathing following the local building code nailing schedule.



Install roof sheathing over rafter caps

STEP FIVE

Install successive courses of Tyvek® AtticWrap™ and roof sheathing:

Install the next course of Tyvek® AtticWrap™ using rafter caps. Align the membrane with the dotted overlap line on the previous course. Seal the joint between the layers with the integrated adhesive strip and cover with roof sheathing. Continue the sequence until you reach the ridge.



Work off the roof sheathing to install successive Tyvek® AtticWrap™ courses

STEP SIX

Wrap Tyvek® AtticWrap™ over the ridge:

Wrap the top course of Tyvek® AtticWrap™ over the ridge and onto the other side. Seal the overlapping edge with DuPont™ Tyvek® Tape. If the edge of the membrane overlaps less than 10 in. over the ridge, apply an additional sheet of Tyvek® AtticWrap™ at least 20 in. wide over the ridge to protect this vulnerable area. Cut and install short pieces of rafter cap over the ridge between the rafters to prevent loose Tyvek® AtticWrap™ from blocking the vent channels.



Fold Tyvek® AtticWrap™ over the ridge and tape overlap

STEP SEVEN

Leave vent slot at ridge:

Rip sheathing to leave an air slot at least 1½ in. wide at the ridge to exhaust the vent channels between Tyvek® AtticWrap™ and the roof sheathing. Ridge vent covers the slot and permits ventilation air to exhaust.



Nail on sheathing ripped to provide a 1½ in. vent slot

WRAP TIP If the roof pitch is greater than 5:12, install toeboards or roof staging along the roof sheathing as required by safety regulations.

Valleys can be vented two different ways.

The valley rafter can be dropped by 2 in. to create a vent channel or the valley jacks can be vented laterally to an adjacent common rafter bay by applying DCI Products™ ValleyVent over the lower portion of each jack.

DROPPED VALLEY RAFTER VENTING METHOD

STEP ONE

Drop valley rafter:

Cut the valley rafter seat an additional 2 in. deep so the valley rafter rests lower. Use a 2 in. spacer block to gauge the valley jack installation.



Drop valley rafter lower than jacks

STEP TWO

Install Tyvek® AtticWrap™ through valley:

Cross-lap the two sheets of DuPont™ Tyvek® AtticWrap™ meeting at the valley by 12 in. minimum. Leave enough slack in each layer to install the DuPont™ RafterCap.

STEP THREE

Cap jack and valley rafters:

Apply a 1/8 in. to 1/4 in. strip of wood or plastic on top of the valley rafter to hold the Tyvek® AtticWrap™ in position and keep the vent space open. Install rafter caps over the valley jacks and staple any loose Tyvek® AtticWrap™ to the rafters. Seal the cross-lap joints with DuPont™ Tyvek® Tape.



Apply rafter caps over valley jacks

VALLEYVENT VENTING METHOD

STEP ONE

Install Tyvek® AtticWrap™ through valley:

Cross-lap the two sheets of Tyvek® AtticWrap™ meeting at the valley by 12 in. minimum. Leave enough slack in each layer to install rafter caps over the jacks.

STEP TWO

Apply rafter caps to jacks:

Apply a DuPont™ RafterCap over each valley jack. Tape the end of the Tyvek® AtticWrap™ sheet to seal the joint.



Apply rafter caps over valley jacks

STEP THREE

Install ValleyVent and sheath:

Apply DCI Products™ ValleyVent at the bottom of each valley jack. Place the thick (three ply) end of ValleyVent to the valley rafter and nail in position. Apply roof sheathing over the valley jacks and ValleyVent.



Apply DCI Products™ ValleyVent over jacks before installing roof sheathing

HIP RAFTER VENTING METHOD

STEP ONE

Cross-lap Tyvek® AtticWrap™ over hip:

Cross-lap courses of DuPont™ Tyvek® AtticWrap™ a minimum of 12 in. across hip. Leave enough slack in each layer to install rafter caps.



Overlay Tyvek® AtticWrap™ from second roof plane onto the first plane

STEP TWO

Install rafter caps:

Cut and install DuPont™ RafterCap over the jack rafters. Install short pieces of rafter caps over the hip rafter between the jacks and inset staple any loose Tyvek® AtticWrap™ to prevent it from blocking the vent channel. Tape Tyvek® AtticWrap™ joints with DuPont™ Tyvek® Tape.

STEP THREE

Install roof sheathing:

Cut and install roof sheathing up to the hip. Leave a 1½ in. minimum air slot between the panel edge and the hip rafter to exhaust the vent channels. Install blocking to hip rafter to support panel edges if needed. Cut the bottom sheathing panels so the lower one foot laps over the hip rafter for support. Ridge vent will cap the vent slot and permit ventilation air to exhaust.



Apply rafter caps over jacks

Wrap Tyvek® AtticWrap™ around the rafter tails and back to the wall

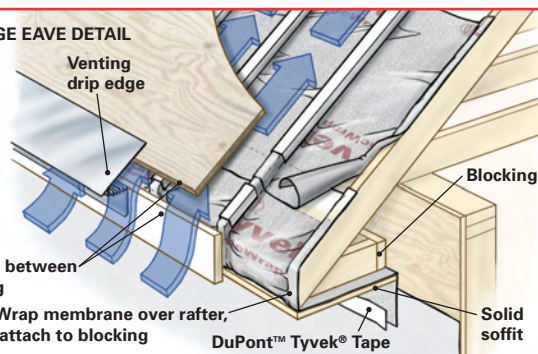


INTAKE VENT AND EAVE SEALING DETAILS - RAFTER CAP METHOD

Install blocking and nailers before wrapping the eaves with DuPont™ Tyvek® AtticWrap™. Wrap the membrane around the eave and back to the wall. Lap Tyvek® AtticWrap™ over the housewrap by 6 in. and seal the joint with DuPont™ Tyvek® Tape. With soffit vented eave details, clinch staple the loose Tyvek® AtticWrap™ between the rafter tails to prevent air channels from being closed off.

VENTING DRIP EDGE EAVE DETAIL

The Venting Drip Edge Eave details use specialty slotted drip edge as an air intake



Leave 1½ in. space between fascia and sheathing

Wrap membrane over rafter, attach to blocking

DuPont™ Tyvek® Tape

Blocking

Solid soffit

Leave 1½ in. space between fascia and sheathing

Venting drip edge

Wrap membrane over rafter and subfascia, attach to nailer

Subfascias may be installed before or after Tyvek® AtticWrap™ is applied

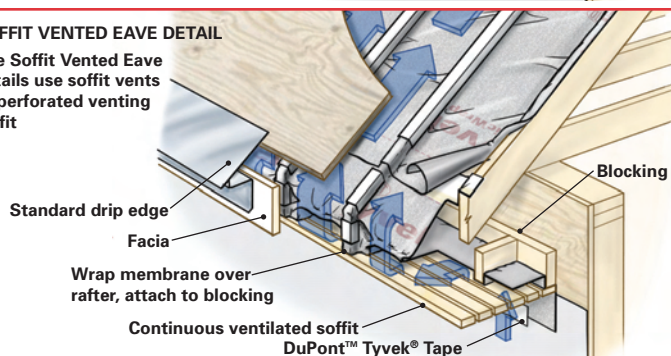
DuPont™ Tyvek® Tape

Nailer

Solid soffit

SOFFIT VENTED EAVE DETAIL

The Soffit Vented Eave details use soffit vents or perforated venting soffit



Standard drip edge

Fascia

Wrap membrane over rafter, attach to blocking

Continuous ventilated soffit
DuPont™ Tyvek® Tape

Blocking

Standard drip edge

Fascia

Install subfascias after Tyvek® AtticWrap™ is applied

Wrap membrane over rafter, attach to nailer

Continuous ventilated soffit

DuPont™ Tyvek® Tape

Nailer

BUILDING CODE REPORTS

Product has been submitted to ICC-ES with an Engineering Report as an alternate method. ICC-ES Evaluation Report is pending.

TECHNICAL SPECIFICATIONS

DuPont™ Tyvek® used in construction products is made from 100% flash spun-bonded high density polyethylene fibers which have been bonded together by heat and pressure, without binders or fillers, into a tough, durable sheet structure. Additives have been incorporated into the polyethylene to provide ultraviolet light resistance. DuPont™ Tyvek® AtticWrap™ has a thin aluminum coating on one side protected with a thin acrylic layer. DuPont suggests that Tyvek® AtticWrap™ be covered within 4 months (120 days) of installation.

PRODUCT REPLACEMENT

DuPont will replace any Tyvek® Weatherization System product damaged during installation by weather or normal handling if it is installed according to procedures published by DuPont. If you have any questions, call DuPont™ Tyvek® Weatherization Systems at 1-800-44-TYVEK.

WARNING

DuPont™ Tyvek® is slippery and should not be used in any application where it will be walked on. In addition, because it is slippery, DuPont recommends using kickjacks or scaffolding for exterior work above the first floor. If ladders must be used, extra caution must be taken to use them safely by following the requirements set forth in ANSI Standards 14.1, 14.2 and 14.5 for ladders made of wood, aluminum, and fiberglass, respectively. DuPont™ Tyvek® is combustible and should be protected from a flame and other high heat sources. DuPont™ Tyvek® will melt at 275°F (135°C) and if the temperature of DuPont™ Tyvek® reaches 750°F (400°C), it will burn and the fire may spread and fall away from the point of ignition. For more information, call 1-800-44-TYVEK.

NOTE

To achieve greater potential, energy savings and weather resistance, any tears, breaks, holes, etc. created during normal construction should be repaired by taping or patching with DuPont™ Tyvek® AtticWrap™ weather resistive barriers. DuPont™ Tyvek® products are weather resistive barriers, not the primary water barrier (the outer facade is the primary barrier). Contamination of any DuPont™ Tyvek® weather resistive barriers and building papers with building site chemicals which increase their wettability (e.g., surfactants) will adversely affect their water resistance and therefore, their contribution to the overall water resistance of the wall system. For superior protection against bulk water penetration DuPont suggests a system combining a quality exterior facade, a good secondary weather resistive membrane and an exterior sheathing, appropriate flashing materials and details; and high quality windows and doors with particular attention to proper installation of each component. In a system where no exterior sheathing is used and DuPont™ Tyvek® is installed directly over the wall studs, exterior facade materials should be selected to ensure maximum protection against water intrusion. Careful workmanship and proper installation of each component is very important.

DuPont believes this information to be reliable and accurate. The information may be subject to revision as additional experience and knowledge is gained. It is the user's responsibility to determine the proper construction materials needed. Because conditions are outside of our control, DUPONT MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, AND ASSUMES NO LIABILITY WHATSOEVER AS TO THE PERFORMANCE OF THE PRODUCTS FOR A PARTICULAR USE. This information is not intended to be used by others for advertising, promotion or other publication for commercial purposes.

**For more information,
Call us at: 1-800-44-TYVEK
Visit us at: www.tyvek.com
Write us at: PO Box 80728,
Wilmington, DE 19880-0728**

©2005 by E.I. du Pont de Nemours and Company. All rights reserved. Tyvek® AtticWrap™, The DuPont Oval Logo, The miracles of science™ and DuPont™ are registered trademarks or trademarks of E.I. du Pont de Nemours and Company or its affiliates.



The miracles of science™