

Commercial (Flat) Roofing Installation Guide

GreenWeld PVB armored flashing system is a high-performance polyvinyl butyral (PVB) membrane enhanced with an aluminum scrim for superior flexibility, strength and weathering capabilities. GreenWeld is comprised of recycled PVB in the monolithic membrane, which can be heat-welded to itself at the seams.

The flashing is designed as a replacement for lead, sealant pockets or a liquid flashing system where GreenWeld functions as the cap flashing ply. This membrane can be used in both residential and commercial roofing applications. In commercial (flat) roofing, it is used in conjunction with an approved two-ply modified bitumen system, single-ply or target patch base sheet to form a complete flashing system. The modified bitumen or single-ply base sheet must be installed according to typical approved system requirements.

For metal applications, the membrane can be installed directly over the finished metal. With all systems, GreenWeld will be installed as the cap ply of the flashing system with GreenWeld Adhesive/Sealant (A/S).

MATERIALS

For Cold Applications:

GreenWeld A/S is the approved adhesive/sealant for cold system application. Use GreenWeld A/S to adhere the membrane to the modified, single-ply or metal surface and seal the membrane at edges or any heat-welded joints.

For Hot Applications:

Hot asphalt cannot be used to install GreenWeld, however GreenWeld can be installed over a hot applied system using GreenWeld A/S or as a drain flashing using cold adhesive.

Application Equipment:

Tools required for GreenWeld PVB may include:

- Suitable trowel for applying adhesive to flashing details
- Roofer's knife with hooked blade for cutting material
- Weighted roller
- Handheld hot air welder
- Sealant gun
- Seam probing tool to check for small voids

General Performance & Installation Benefits:

Independent tests show that GreenWeld has the same waterproofing properties as traditional lead and liquid flashing used to seal roof penetrations. Because it is flexible even at very low temperatures (down to -4°F), GreenWeld can be installed in extreme conditions without trouble. This material is also very easy to heat-weld, which means attractive, strong, watertight seams.

- Use the 2"x2" grid printed on the release liner to make cutting more efficient
- GreenWeld can be used in any climate where temperatures range from -58°F (14.4°C) to 212°F (100°C), however, see GreenWeld A/S data sheet for limitation on temperature when using sealant
- Long lengths of GreenWeld can be installed without any problems—the maximum length is the length of the roll with a minimum overlap of 2"
- Overlaps can be hot air welded – the recommended welding temperatures is 660°F to 750°F (348.8 °C to 398.8°C)
- Use a hand roller to press down the welding seam
- Use GreenWeld A/S for overlaps in masonry (4" minimum)
- In places and areas that are frequently exposed to wind, GreenWeld A/S should be used to fully secure the membrane
- When molded or used as facing material, it is recommended that the membrane be secured with GreenWeld A/S
- Ensure the base material is dry and clean prior to application
- Before removing release liner, use a hand roller to mold the membrane into the intended shape
- Remove the release liner on the adhesive side of the product and press into place; use the hand roller to ensure maximum contact between the membrane and substrate
- Once complete, remove the release liner from the membrane top surface

WEATHER CONDITIONS

Do not attempt application if ice, snow, moisture or dew is present. Bonding substrates must be clean, dry and free of dust or other inhibitors of proper adhesion. Contact your Viking Sales Representative for proper cold weather applications.

STORAGE

Store pails, kegs and roll goods in their original packaging, indoors on pallets protected from the elements. If stored on the roof, all product must be stored under a tarp at all times. Rolls and containers that are improperly stored or have been warehoused for prolonged periods of time could potentially be damaged.

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IMPORTANT APPLICATION CONSIDERATIONS

- Do not install in inappropriate weather conditions or when there is a 30% or greater chance of rain or snow forecasted. If temperatures are lower than 50°F (10°C), refer to the cold weather guidelines applied by the NRCA or Viking Products Group
- Do not apply roofing materials that have been improperly stored or exposed to moisture; if the material is not bonding, stop the application immediately
- Refer to the roof system specification for complete requirements
- Substrates must be free of dust, dirt, oil, debris and moisture
- Work with manageable lengths of base and cap sheets. Where appropriate, cut rolls into 1/3 or 1/2 roll lengths and allow material to relax prior to installation

FLASHING APPLICATION

These application recommendations are designed as a reference. The applicator must follow specific details contained in the approved project specifications.

For pipe penetrations and other flashing details, install any approved sheets, then install GreenWeld membrane over the already installed field plies.

A. Pipe/Angle Iron Flashing with Collar for Cold Installation

1. Properly install the membrane flashing target patch beneath GreenWeld per the detail minimum 4-6" from penetration.
2. Secure GreenWeld PVB membrane with GreenWeld A/S in beads 3-4" o.c. with the dimple-side of the membrane facing down.
 - a. Pre-Manufactured Closed-Boot: Immediately slide boot over the penetration and set in the applied GreenWeld A/S.
 - b. Pre-Manufactured Split-Boot: Immediately wrap the pre-manufactured boot and set in the applied GreenWeld A/S and heat-weld the seams of split boot per detail using a hot air welding gun.
 - c. Field Wrap Pipe Boot: Cut proper lengths per appropriate detail and heat-weld the seams to make Closed or Split-boot from roll material, then follow directions above.
3. Use a weighted roller to roll the membrane into the corners, target patch and penetration, spreading material over GreenWeld A/S.

4. Install collar at top of membrane per detail, clamping material down tightly.
5. Seal any edge of the material or seam with GreenWeld A/S and seal the top of the collar.
6. Remember: Once the membrane is molded into the desired shape, remove the release liner on the adhesive side of the product and press into place; use the hand roller to ensure maximum contact between the membrane and substrate. Once complete, remove the release liner from the membrane top surface.
7. Optional: Install umbrella above collar and seal with GreenWeld A/S.

B. Pipe/Soil Stack Flashing for Cold Installation (No Collar)

1. Properly install the membrane flashing target patch beneath the GreenWeld membrane per the detail minimum 4-6" from penetration.
2. Secure GreenWeld PVB membrane with GreenWeld A/S in beads 3-4" o.c. with the dimple-side of the membrane facing down.
 - a. Pre-Manufactured Closed-Boot: Immediately slide boot over the penetration and set in the applied GreenWeld A/S.
 - b. Pre-Manufactured Split-Boot: Immediately wrap the pre-manufactured boot and set in the applied GreenWeld A/S and heat-weld the seams of split boot per detail using a hot air welding gun.
 - c. Field Wrap Pipe Boot: Cut proper lengths per appropriate detail and heat-weld the seams to make Closed or Split-boot from roll material, then follow directions above.
 - d. If installing on an angle iron or odd shaped pipe where a collar cannot be used, install top of GreenWeld PVB Membrane in continuous bead of GreenWeld A/S using a weighted hand roller to roll in the membrane completely, and seal the top of the membrane edge with GreenWeld A/S.
3. Utilize a weighted roller to roll the membrane into the corners, target patch and penetration, spreading material over adhesive.
4. Fold membrane down into the pipe at a minimum of 1.5" down into pipe, but not more material than allows the pipe to function properly, pushing all membrane up against the inside of the pipe.
5. Remember: Once the membrane is molded into the desired shape, remove the release liner on the adhesive side of the product and press into place; use the hand roller to ensure maximum contact between the membrane and substrate. Once complete, remove the release liner from the membrane top surface.

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C. Drain Flashing for Cold/Hot Installation (Lead Alternative)

1. Plug drain to prevent debris from entering plumbing.
2. Install insulation and membrane system per manufacturer's recommendations.
3. If using a hot asphalt system, install hot asphalt for plies up to GreenWeld PVB membrane. Then, use approved cold adhesive for membrane over the GreenWeld PVB membrane as drain flashing.
4. Set GreenWeld PVB as drain flashing (30" square minimum) in 1/4" bed of approved cold adhesive or mastic. Run GreenWeld PVB into drain a minimum of 2" (50 mm).
5. Install base flashing ply per manufacturer's recommendation (40" square minimum) in approved cold adhesive over GreenWeld PVB.
6. Install cap membrane (48" square minimum) in hot asphalt or approved cold adhesive per manufacturer's recommendations.
7. Remove drain plug and install strainer.

D. Internal Gutter Liner/Flashing Installation

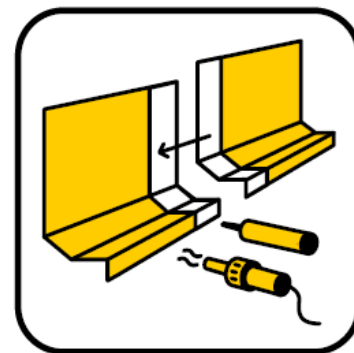
1. Remove all loose debris, coating and membrane.
2. Pressure clean the existing gutter and remove debris to workable surface.
3. Secure GreenWeld PVB membrane with GreenWeld A/S in beads 3-4" o.c. with the dimple-side of the membrane facing down.
4. Work to slope GreenWeld from high side to low side of the gutter.
5. Heat-weld seams of membrane, keeping high edge of lap to high side of gutter, then seal with GreenWeld A/S.
6. Tie in GreenWeld on each side of gutter at top side and termination bar if needed and secure with GreenWeld A/S.
7. Seal all penetrations with proper flashing detail and GreenWeld A/S.

Through-Wall Flashing

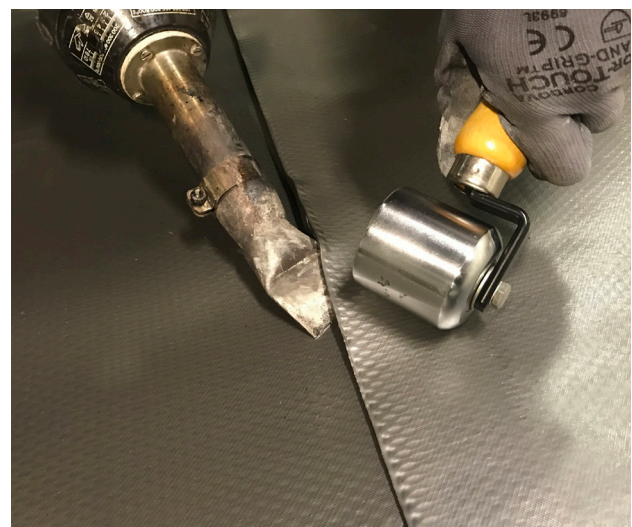
1. All masonry surfaces receiving through-wall flashings shall be free from loose materials and reasonably smooth. There shall be no slopes that will form pockets or prevent free drainage of water to the exterior surfaces of the wall. All work shall be executed in conformance with accepted trade practice.
2. Install GreenWeld in dimensions cut to fit as follows.
3. Extend flashing 6" (152.4mm) minimum beyond opening. Fold flashing ends at end of openings or horizontal flashing terminations to form end dam or use premanufactured units made of 26-gauge stainless steel.
4. Flashing width, required to start flush with outside face of exterior wythe, extending through cavity, rising height required to extend 8" (203.2mm) above weep level or 2" (50.8mm) minimum above lintel steel, whichever is higher.

5. Seam end joints by overlapping them a minimum of 2" (50.8mm). Heat-weld seams of membrane and seal with GreenWeld A/S.
6. Back up wall attachment: Surface apply after air/water barrier installation is completed in accordance with manufacturer's requirements. Fasten to back up wall at top of flashing using aluminum termination bar. Fasteners shall be appropriate for back up wall type and spaced at a minimum of every 3" (76.2mm) o.c. Seal the top edge to back up wall with GreenWeld A/S.
7. Install weep and mortar blocking netting according to project specifications.

APPLICATION ILLUSTRATIONS & IMAGES



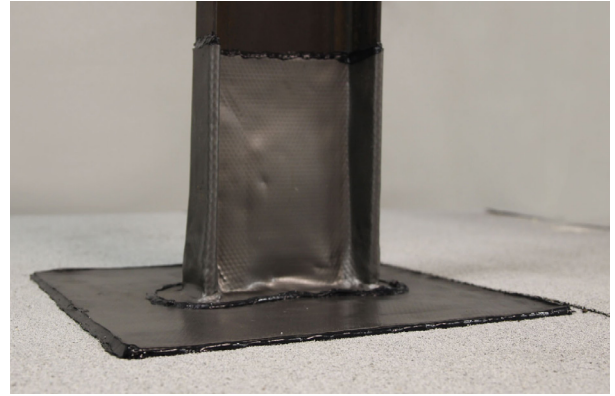
Overlap area/ Heat-welded



APPLICATION IMAGES CONT.



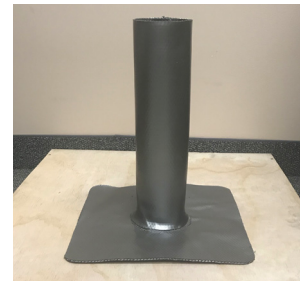
Easy to cut



Moldable for beams



Flexible and lightweight



Custom Flashing Options