

KEE-STONE® FB 60 FLASHING INSTALLATION GUIDELINES



The KEE-Stone® FB 60 Flashing is a 60-mil thick, fleece backed, high-performance KEE (Ketone Ethylene Ester) thermoplastic membrane enhanced with DuPont™ Elvaloy® HP for superior flexibility, strength and superior weathering.

KEE-Stone flashing is designed as a two-ply flashing system where the cap flashing ply is the KEE-Stone FB 60 Flashing membrane. This membrane is used in conjunction with an approved Garland modified bitumen base sheet to form a complete flashing system. The KEE-Stone FB 60 Flashing has a non-woven polyester fleece (6.5 oz per sq. yd) that is heat bonded to the backside of this membrane for superior adhesion to the base sheet.

The modified bitumen base sheet will be installed with typical modified bitumen system requirements and then the KEE-Stone FB 60 Flashing membrane will be installed as the cap ply of the flashing system with hot or cold application options.

Materials

For Hot Applications:

The materials used in a hot system may include HPR® All-Temp, Garlastic® KM Plus or approved hot asphalt to adhere the modified bitumen base sheet and KEE-Stone FB 60 Flashing membrane along with KEE-Lock® Mastic & GarMesh to seal the leading edge of the KEE-Stone membrane where it ties into the field of the roof.

For Cold Applications:

The materials used in a cold system may include Green-Lock Flashing Adhesive to adhere the modified bitumen base sheet, KEE-Lock Foam to adhere the KEE-Stone FB 60 Flashing membrane, and KEE-Lock Mastic & GarMesh to seal the leading edge of the KEE-Stone membrane where it ties into the field of the roof.

System Product Options

Field:

Any approved Garland modified bitumen roofing system.

Flashing:

Use either; HPR Torch Base Sheet, StressBase™ 80/120, FlexBase® 80, FlexBase Plus 80, FlexBase E 80 base sheet, CI Viking CIF2HM or CI Viking CIF3HM followed by KEE-Stone FB 60 Flashing membrane.

Application Equipment

Every professional roofer is familiar with the tools needed to complete a hot or cold process roof installation, but just as a recap; here are some specific tools you'll need to install Garland's two-ply KEE-Stone flashing system:

For Hot Applications:

- Suitable trowel for applying adhesive to flashing details
- Roofer's knife with hooked blade
- Long-handled roller with 1/8"-1/4" nap for applying primer-1/8" nap for smooth surfaces; 1/4" nap for more porous surfaces
- Fiberglass mop
- Fire extinguisher
- Weighted roller
- Seam probing tool to check for small voids
- Hand held hot air welder

For Cold Applications:

- Suitable trowel for applying adhesive to flashing details
- Roofer's knife with hooked blade
- Weighted roller
- Hand held hot air welder

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- Seam probing tool to check for small voids

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. Cooler temperatures will negatively impact the properties of the system. Contact your Garland 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 needs to be 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.

Important Application Considerations

- Do not install in inappropriate weather or when rain or snow is in the forecast of 30% or greater. If temperatures are lower than 50°F (10°C), refer to the cold weather guidelines applied by the NRCA or The Garland Company
- Store all roofing materials in a protected area prior to application
- Do not apply roofing materials that have been improperly stored or exposed to moisture. IF THE MATERIAL ISN'T BONDING, STOP THE APPLICATION!
- Refer to the roof system specification for complete requirements
- Substrates must be free of dust, dirt, oil, debris and moisture
(Primer, if used with hot installation, must be applied at the specified rate and must be allowed to thoroughly dry)
- Work with manageable lengths of base and cap for the particular job. Where appropriate, cut rolls into 1/3 or 1/2 roll lengths and allow material to relax prior to installation

Flashing Application

Application below is designed as a reference. Applicator needs to follow specific details contained in the approved project specifications.

At all vertical and other flashing details, install one of the approved base sheets mentioned earlier in this document followed by the KEE-Stone FB 60 Flashing membrane extending over the already installed field plies.

Base Flashing for Hot Installation

1. Prime the horizontal surface with Garland approved (ASTM D 41) primer and allow to dry
2. Position the base flashing ply where it is ready to be installed
3. Use preferred method to align sheet with install path
4. Apply asphalt to the substrate and a min. 6" (152.4mm) onto the field at the manufacturer's specified EVT (+/- 25°F) at a nominal rate of 25 lbs. per 100 sq. ft.
5. Install a 3' (1.0 m) wide approved base flashing ply extending min. 6" (152.4mm) onto the field of the roof.
6. Overlap base flashing ply side laps 4" (100 mm)
7. Utilize a clean trowel to apply pressure to all T-laps to seal immediately following base ply application

Cap Flashing for Hot Installation

1. Before installing the cap sheet, all dust, dirt or debris must be removed from the base sheet
2. Position KEE-Stone® FB 60 Flashing membrane where the membrane is ready to be installed
3. Use preferred method to align sheet with install path
4. Apply asphalt to the approved base sheet a min. 9" (228.6mm) onto the mineral surfaced field ply at the designated EVT (+/- 25°F) at a nominal rate of 25 lbs. per 100 sq. ft.
Note: During cold weather, don't lead hot asphalt ahead of roll more than 3'.
5. Install KEE-Stone FB 60 Flashing ply extending min. 9" (228.6mm) onto the field of the roof and at the desired width depending on the size of the crew handling the membrane

Note: KEE-Stone FB 60 Flashing membranes will butt up to one another and then the seam will be covered

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with a heat welded KEE-Stone Utility Roll over the seam.

6. Broom in the KEE-Stone FB 60 Flashing membrane immediately after install to ensure even continuous contact between the fleece backing and the asphalt, avoiding any air pockets.
Note: KEE-Stone FB 60 Flashing should be rolled into the hot asphalt to avoid air pockets behind the membrane.
7. On all vertical laps, fully heat weld 6" KEE-Stone Utility Roll o.c.
8. Complete all inside and outside corner flashing details by fully heat welding properly formed KEE-Stone Utility Roll as a patch.
Note: Once the membrane has had a chance to bond, utilize a seam probe to check all laps and joints for full adhesion. Check for small voids at laps; if the membrane can be lifted at any area, it is not properly adhered. Any areas not properly bonded require welding or if necessary, the application of a patch to seal any un-bonded areas that exist.
9. After asphalt has set up and vertical seams have been sealed, apply a three-course application of KEE-Lock Mastic and GarMesh a min. 8" (203.2mm) wide onto the horizontal seam at the base of the wall flashing at a rate of 1/8" (3 mm) thick with GarMesh reinforcement followed by a top coat of 1/8" (3 mm) thick.
10. All vertical flashings shall be terminated a min. 8" (203mm) above the top layer of insulation with approved termination bar and counter-flashing system.

Base Flashing for Cold Installation

1. Position the base flashing ply where it is ready to be installed
2. Use preferred method to align sheet with install path
3. Apply Green-Lock Flashing Adhesive to the substrate and a min. 6" (152.4mm) onto the field at a rate of 2-3 gallons per 100 sq. ft. (0.82-1.2 l/ m²)
4. Install a 3' (1.0 m) wide Garland approved base flashing ply extending min. 6" (152.4mm) onto the field of the roof.
5. Overlap base flashing ply side laps 4" (100 mm)
6. Utilize a clean trowel to apply pressure to all T-laps to seal immediately following base ply application

Cap Flashing for Cold Installation

1. Before installing the cap sheet, all dust, dirt or debris must be removed from the base sheet
2. Position KEE-Stone FB 60 Flashing membrane where the membrane is ready to be installed
3. Use preferred method to align sheet with install path
4. Apply KEE-Lock Foam to the backside of the KEE-Stone FB 60 Flashing in a ribbon pattern in 1/2" – 3/4" (1.27 cm – 1.90cm) wide beads, 6" o.c. (15.24 cm)
5. Install KEE-Stone FB 60 Flashing ply extending min. 9" (228.6mm) onto the field of the roof and at the desired width depending on the size of the crew handling the membrane
Note: KEE-Stone FB 60 Flashing membranes will butt up to one another and then the seam will be covered with a heat welded KEE-Stone Utility Roll over the seam.
Note: Ensure that the foam adhesive is not applied to any side laps or areas where the membrane is to be heat welded.
6. Broom in the KEE-Stone FB 60 Flashing membrane immediately after install to ensure even continuous contact between the fleece backing and the foam adhesive
7. On all vertical seams, fully heat weld 6" KEE-Stone Utility Roll
8. Complete all inside and outside corner flashing details by fully heat welding properly formed KEE-Stone Utility Roll
Note: Once KEE-Stone Utility Roll has had a chance to bond, utilize a seam probe to check all laps and joints for full adhesion. Check for small voids at laps; if the membrane can be lifted at any area, it is not properly adhered. Any areas not properly bonded require welding or if necessary, the application of a patch to seal any un-bonded areas that exist.
9. After KEE-Lock Foam has set up and vertical seams have been sealed, apply a three-course application of KEE-Lock Mastic and GarMesh a min. 8" (203.2mm) wide onto the horizontal seam at the base of the wall flashing at a rate of 1/8" (3 mm) thick with GarMesh reinforcement followed by a top coat of 1/8" (3 mm) thick .
10. All vertical flashings shall be terminated a min. 8" (203mm) above the top layer of insulation with approved termination bar and counter-flashing system.