

## OVERVIEW

KEE-Stone HP NF Flashing is a 60-mil thick, non-fleeceback KEE (Ketone Ethylene Ester) thermoplastic flashing membrane with a lighter and more workable composition for easier installation and durability. Made with the same high-performance ELVALOY<sup>™</sup> HP compound as Garland's KEE-Stone membrane, KEE-Stone HP NF Flashing is designed for use as the top component in a two-ply flashing application. This membrane is used in conjunction with approved Garland modified base sheets to form a complete flashing system.

KEE-Stone HP NF Flashing is reinforced with a high-performance polymer-coated high tensile strength polyester scrim, a distinctive composition that provides exceptional puncture, tensile and tear resistance while preserving the flexibility of the membrane. KEE-Stone meets and exceeds ASTM D 6754, the standard specification for KEE-based sheet roofing.

**High Performance Quality and Durability** – KEE-Stone HP NF Flashing's robust polymer compound and high tensile strength polyester scrim provides superior resistance to the harshest elements like wind, hail, rain and sleet as well as wear and tear on the entire roof surface. KEE-Stone HP NF Flashing uses the industry's highest quality KEE Dow Elvaloy HP. This HP ELVALOY<sup>™</sup> polymer is formulated throughout the entire membrane, providing superior heat resistance while retaining low-temperature flexibility. KEE-Stone HP NF Flashing is one of the highest quality thermoplastic membranes in the roofing industry and will provide decades long performance and peace of mind.

**Superior Fire Resistance** – KEE-Stone HP NF Flashing is formulated with a novel blend of fire retardants to increase Garland's fire ratings. Through severe fire testing, KEE-Stone HP NF Flashing achieved a Class A fire rating, which offers the the highest resistance to fire and is the preferred rating for any commercial building. KEE-Stone HP NF Flashing has a 2:12 class A fire rating for a combustibile deck and a 3:12 Class A rating for a non-combustibile deck.

**Excellent UV Resistance** – KEE-Stone HP NF Flashing's bright white surface, robust polymer compound and advanced chemistry resist damaging effects of the sun to protect the building and its occupants. The bright white finish reflects harmful UV rays away from the building providing a much cooler roof surface, minimizing solar absorption and reducing the amount of energy needed to cool the structure. The HP KEE formula locks the plasticizer within the membrane to prevent damaging migration that causes lesser materials to dry and crack under UV exposure. These resilient properties contribute solar radiative properties that are among the highest of any membrane listed with the Cool Roof Rating Council (CRRC).

## APPLICATION

KEE-Stone HP NF can be installed over Garland-approved modified base sheets. Adhere one ply of approved Garland modified base sheet solidly to the approved substrate. Apply KEE-Lock<sup>™</sup> WB Flashing Adhesive to the exposed side of the already installed base flashing ply and to the backside of the KEE-Stone HP NF Flashing membrane at a total combined rate of 1.0 -1.5 gallons per 100 sq.ft. (0.4-0.6 l/m2).

- If tying into a KEE-Stone roofing system, leave the bottom 3" free of adhesive to allow for heat-welding of cap flashing membrane to field membrane.
- If tying into a modified bitumen roofing system, apply adhesive to the entire backside of cap flashing membrane.

Once applied to both surfaces, allow a minimum 30 minutes (depending on environmental conditions) for the adhesive to become tacky. Using the fingerpush method, check that the adhesive develops strings, signifying that it has reached ideal tackiness. Once the adhesive is tacky enough, set the KEE-Stone HP NF Flashing in place on the wall. Immediately roll the surface using a 2 in. wide weighted roller to ensure proper mating of the two surfaces. Once the KEE-Stone HP NF is adhered, heat-weld seams to seal the membranes together.

## STORAGE

Keep rolls in their original packaging and store in a cool, dry area until they are ready to be installed. Store rolls on pallets and keep off the ground. Do not store anything on top of the rolls to prevent creasing or damaging the membrane.

## PRECAUTIONS

- Wearing sunglasses is recommended when installing this membrane, as the white surface is highly reflective.
- The roof surface can be slippery when wet. Take care especially around the roof edge.
- To prevent cutting or piercing of the KEE-Stone Flashing membrane, do not cut open the packaging.

| Technical Data   | KEE-Stone HP NF Flashing                          |
|--|---|
| Thickness<br>(ASTM D 751)  | 0.060 in. (1.524 mm)                              |
| Thickness over fiber, min.   | 0.030 in. (0.762 mm)                              |
| Breaking strength<br>(ASTM D 751, proc. B - strip)   | MD 375 lbf/in (1668 N)<br>XMD 375 lbf/in (1668 N) |
| Elongation at Break %<br>(ASTM D 751, proc. B - strip)                                       | MD 40%<br>XMD 40%                                 |
| Low temperature bend<br>(ASTM D 2136)  | -40°F (Pass) (-40°C)                              |
| Puncture Resistance<br>(ASTM D 751)  | 190 lbs (86.2 kg)                                 |
| Static Puncture Resistance<br>(ASTM D 5602)  | Pass  |
| Tearing Strength, lbf<br>(ASTM D 751)  | MD 150 lbf (667 N)<br>XMD 290 lbf (1,290 N)       |
| Factory Seam Strength<br>(ASTM D 751, Grab Method)   | 645 lbf min                                       |
| Abrasion Test<br>(ASTM D 3389)   | 7,410 revolutions                                 |
| Fungi Resistance<br>(ASTM G 21)  | No fungi growth                                   |
| Hydrostatic Resistance<br>(ASTM D 751, Method A, Procedure 1)                                | >600 psi  |
| Accelerated weathering test after 5000-h fluorescent / condensation exposure<br>(ASTM G 154) |   |
| Cracking (7x magnification)  | none  |
| Crazing (7x magnification)   | none  |

Product meets and exceeds ASTM D 6754.

## ECO-FACTS

| Solar Reflectivity | KEE-Stone HP NF Flashing |            |
|--------------------|--------------------------|------------|
|                    | Initial                  | 3-Yr Aged* |
| Reflectance        | 0.88                     | 0.76       |
| Emittance          | 0.90                     | 0.89       |
| SRI                | 112                      | 94         |

\* Rapid rating values

## ROLL DIMENSIONS

| Technical Data    | KEE-Stone HP NF Flashing                           |
|-------------------|--|
| Width             | 4 ft. (1.2 m)                                      |
| Length            | 50 ft. (15.24 m)                                   |
| Weight            | 0.49 lbs/ft <sup>2</sup> (2.39 kg/m <sup>2</sup> ) |
| Nominal thickness | 60 mils (1,524 microns)                            |
| Overall thickness | 105 mils (2,667 microns)                           |
| Net coverage      | 200 sq. ft. (18.58 m <sup>2</sup> ) per roll       |
| Packaging         | 10 rolls/pallet<br>(individually bagged)           |

## ACCREDITATIONS



Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected.  $\pm$  10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office in your country for more information.



For more information, visit us at: [www.garlandco.com/KEE-Stone-HP-NF-Flashing](http://www.garlandco.com/KEE-Stone-HP-NF-Flashing)

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Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected.  $\pm$  10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or Garland Corporate Office for more information.

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