Black Staining and Flow from Self-Adhesive, Bituminous-Based Wall Flashings

DISCLAIMER

This Technical Advisory is intended to serve only as a general resource and to identify potential issues for consideration by industry professionals. Each person using this Technical Advisory is solely responsible for the evaluation of the Technical Advisory in light of the unique circumstances of any particular situation, must independently determine the applicability of such information, and assumes all risks in connection with the use of such information. The materials contained in this Technical Advisory do not supersedes any code, rule, regulation, or legislation and are not intended to represent the standard of care in any jurisdiction.
In addition to the occurrence of stains, the adhesive quality of sealant can also be affected when in contact with the bituminous compound.

- Black stains can be unsightly. Bituminous stains can be difficult to remove from porous building materials such as cut natural stone and masonry.
- Flow of the rubberized asphalt can potentially compromise the integrity of the installed sheet material.

C. RECOMMENDATIONS

It is recommended that designers and specifiers incorporating self-adhesive, bituminous-based materials within vertical wall assemblies should consider the following:

- Provide the proper bituminous-based, self-adhesive material for the intended use. Sheets manufactured for use in plaza deck or below-grade waterproofing applications have lower bitumen softening temperatures. These membranes are generally not intended to be used within the vertical wall assembly. Other sheets have higher softening points and are intended to be used where high in-service temperatures are expected.
- Terminate bituminous-based, self-adhesive, through-wall flashing approximately ¼ inch from the exterior face of the wall or veneer. Bituminous-based, self-adhesive flashing materials should never be exposed to daylight in service.
- Do not leave bituminous-based, self-adhesive materials exposed longer than recommended by the manufacturer during construction.
- Verify that the bituminous-based, self-adhesive material will not be subject to service or installation temperatures beyond the manufacturer’s recommendations. High-temperature-grade materials should be used where required.
- Do not adhere the bituminous component of the self-adhesive material to sealants, flexible PVC materials, urethanes, or other types of plastics without verifying compatibility with all of the effective products.
- Verify compatibility and staining potential of both the top protective film and bituminous-based adhesive with all proposed sealants.
- Perform adhesion tests of sealants that may come in contact with the self-adhesive sheet material.
- Be aware that service temperatures include the actual dry bulb temperature, as well as elevated temperatures due to solar heat gain, reflected heat, and other heat sources such as installation behind dark-colored or metal panels. These influences may expose the specific in-service placement of these materials to temperatures that are higher than the manufacturer’s published anticipated dry bulb temperature for the locality of use.
- Follow the manufacturer’s installation instructions, including the use of the manufacturer’s recommended primers, surface conditioners, and water cut-off mastics at lap seams and terminations, which may help to reduce staining potential.

D. INDUSTRY STANDARDS AND REFERENCES

Figure 1 – Black flow from self-adhesive, bituminous-based flashing.

Figure 2 – Embrittlement of thermoplastic membrane from self-adhesive, bituminous-based flashing.