

Scupper linings in E2/AS1 – preformed or formed on-site?

This guidance looks at the requirements for scupper linings in E2/AS1.

The information was confirmed as current in November 2017. It originally appeared in Codewords 61.

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Of interest to Building consent authorities, Designers, Roofers

E2/AS1 requires membrane decks to be drained to either deck-mounted outlets with clamped rings, or through scuppers to rainwater heads (see E2/AS1 8.5.6.)

Where scuppers are used, there are specific details in E2/AS1 for forming the membrane outlets through the bottom of balustrades. This is a location where special attention is required for weathertightness. The joints involve three-way corners that require the utmost skill, care, and attention to detail on the part of the applicator.

They are also locations that require ongoing monitoring and regular maintenance. If these joints failed, there would be serious water ingress consequences, because the scupper is where water concentrates in the rain water drainage path.

For this reason, E2/AS1 includes Note (1) in Figure 63, which states, 'Use preformed scuppers where provided by the membrane supplier.'

Preformed scuppers, being factory produced, should be more reliable than three-way jointing seams formed on-site.

E2/AS1 2.3 also states, 'All building products shall be considered as a system, even where provided from different sources. Materials used to construct the building envelope shall be designed as a complete cladding system rather than as separate items.'

Responsibility for the integrity of the membrane system must remain with the membrane supplier and applicator, even when they choose to supply and use a preformed scupper from a different manufacturer. It is the membrane supplier/applicator who must ascertain that all components are compatible, eg adhesion of membrane to preformed scupper, and ability of scupper to drain water into the collection system.

If E2/AS1 is being followed, the preformed scupper must meet the minimum requirements and features, including a drip edge, shown in Figure 63. Scupper manufacturers should take note that where these features are not included, the scupper constitutes an alternative solution.

E2/AS1 is not saying that only preformed scuppers can be used. E2/AS1 is saying that where a membrane supplier accepts and supplies a preformed scupper in conjunction with their system, it shall be used in preference to on-site forming. In doing so, the membrane supplier and applicator must continue to accept full responsibility for the work, including all components used and their integrity as a membrane system.

Read E2/AS1 (<https://www.building.govt.nz/building-code-compliance/e-moisture/e2-external-moisture/acceptable-solutions-and-verification-methods/>) (<https://www.building.govt.nz/building-code-compliance/e-moisture/e2-external-moisture/acceptable-solutions-and-verification-methods/>)

All guidance related to E2 External moisture (<https://www.building.govt.nz/building-code-compliance/e-moisture/e2-external-moisture/>)

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