When including an expansion joint in your building, whether on the roof or exterior wall, there are many aspects to consider to prevent water from leaking through the joint into the building. Key things to plan for are:

- Selection of the proper cover type is critical to confirm the system is correctly sealed to the wall. Rubber and rail systems require the aluminum rail to be flush against the surface to seal, whereas foam products adapt well to variations in substrates.

- To ensure proper coordination of transitions between the horizontal plane of the roof and the vertical wall, a provision should be included in the specification that all materials are to be supplied by the same manufacturer. This is often referred to as using a ‘single source supplier.’

- Manufacturer supplied transition details can help different trades coordinate installations on both the vertical and horizontal expansion joint covers. Coordinating installations makes sure that transitions between different materials are carried out in a manufacturer suggested application, which supports weather tightness.

Knowing the difference between factory miters and field miters can eliminate concerns about whether or not your joint will truly be waterproof. When writing your specification, factory miters should be specified in lieu of field miters for the following reasons:

- Factory miters for vertical applications can be heat welded for project specificity. Factory heat welding allows for uniformity of complex miters. This provides a consistency and quality that cannot be guaranteed with a field miter.

- Factory miters for horizontal applications are typically welded to move any splices from the complex corner to an easier butt splice. This ensures consistency and quality for these miters as well.

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