

Capillary Action

Capillary action, or capillarity, occurs when the interaction between contacting surfaces of a liquid and a solid result in the liquid wicking, or becoming elevated. This effect is similar to what causes porous materials, such as sponges, to soak up liquids.

When installing metal panels with MoistureLok anti-condensation membrane, it is important that the panels are installed and modified to prevent capillary action at critical details. Such details include lap, eave and ridge conditions.

The Consequence of Capillary Action

If roof panels with MoistureLok are installed and the capillary effect has not been prevented, the membrane may start to attract water from outside of the roof area, resulting in possible leaks, mold and/or mildew.

How to Prevent Capillary Action

To prevent capillary action, surfaces with MoistureLok need to be field-treated anytime there is a panel-to-panel, panel-to-eave trim or panel-to-die-formed ridge cap connection. The panel or trim exposed to the environment should be treated as indicated below.

Step 1: Layout panels or trim with MoistureLok face up and make a reference line based on the following guidelines:

- Max-Rib, Mesa, and Multi-Rib**
 - 4" burn-back at end laps and die-formed ridge caps.
 - Panel overhang plus 1" at eaves. Material to be fused (glazed) just past inside closure and tape.
- MasterLok-90 and Mirage**
 - 3" burn-back at end laps for MasterLok-90.
 - Panel overhang plus 1" at eaves for MasterLok-90 and Mirage. Material to be fused (glazed) just past inside closure and tape.



Step 2: Using an adjustable electric heat gun, set temperature to a minimum of 1200° F.

Step 3: Hold heat gun approximately 1" from MoistureLok material and begin fusing (glazing) MoistureLok fibers together. Be careful not to allow the heat to set in one spot too long, which could damage the panel's finish. **MoistureLok material should be completely melted resulting in charred nodules that, when cooled, can be easily scraped away with a thumbnail leaving no visible fibers left in tact.**

Step 4: Once cooled, install panels using butyl tape as required under normal installation conditions.

