



Masonry in Hawaii

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Will painting alone be sufficient to keep moisture out of the building if you are designing the cmu wall with a single wythe split face block?

In some situations, painting alone could keep moisture out but sometimes it may not.

In designing for prevention of moisture coming through the wall, the architect needs to be aware of ways that moisture enters the building envelope. They include the following:

1. Driving rain on the surface of a split face masonry product. Moisture in liquid form can pass through concrete masonry units and mortar when driven by a significant force. However, these materials generally are too dense for water to pass through quickly. If water enters the wall, it often can be traced to the masonry unit-mortar interface due to improperly filled joints or lack of bond between the unit and the mortar. Cracks caused by building movements, or gaps between adjoining building segments (roofs, floors, windows, doors, etc.) and masonry walls are other common points of water entry.
2. Through capillary action. Untreated masonry materials typically take on water through capillary forces. The amount of water depends on the capillary suction characteristics of the masonry and mortar.

Since the split face block is manufactured with a very absorptive material (calcareous limestone), and has a surface where it can collect standing water, a clear penetrating surface treatment water sealer is recommended together with an elastomeric paint. This double protection or redundant feature is highly recommended by the industry.

Another way that the designer could minimize the moisture from coming into the building is utilize the integral water sealer. This sealer is introduced to the blocks as it is being manufactured and can be painted over by most of the paints on the market today. One of the most beneficial benefit of this sealer is that it will last the lifetime of the block and will not be affected by the UV of the sun.

