POSITION PAPER

JULY 2021

air barrier abaa association of america

STOP WATER FROM GETTING INTO YOUR WALLS DURING CONSTRUCTION!

The condition of the substrate that the air barrier material is installed on plays a major role in the long-term success of the air barrier system. Different air barrier materials have different substrate considerations. Substrate considerations typically fall under 4 main categories:

- Moisture content
- Substrate temperature
- Cleanliness
- Surface profile

WHY IS THIS IMPORTANT THAT YOU PROTECT THE TOP OF WALLS?

Each year we see numerous problems and complaints in the air barrier installations across the country due to water entering the wall assemblies. This is primarily due to **no protection at the top of the concrete masonry units during the construction process.**

The resulting damage to some walls has been significant. In many cases, the air barrier is required to be removed where the air barrier materials have delaminated, blistered and lost adhesion. Often it results in the air barrier system being reapplied. The time and materials to remove and replace the system can be enormous.

Proceeding with the installation of the air barrier system with these undesirable circumstances is significant risk.

WHAT HAPPENS?

In many circumstances, a water-based fluid applied system could re-emulsify, blister and delaminate from the substrate. Self adhered systems can also completely delaminate and form blisters from loss of adhesion.

NEXT PAGE FOR EXAMPLES OF TEMPORARY ROOF COVERINGS & SAMPLES OF MOISTURE DAMAGE TO FLUID APPLIED MEMBRANES

WHAT SHOULD YOU DO?

1. **Specifications**
   Ensure that the project specifications require that the walls be properly protected prior to the installation of the air barrier system. It is imperative that the specification be reviewed and adhered to. If it is not clearly outlined in the construction documents, it is important to have this discussion during the bidding process.

2. **Mandatory Pre-Construction Meetings**
   This should be an agenda item to review with the construction team and outline how this is to be executed, responsibilities and on-going review of the substrate.

3. **During Construction:**
   It is recommended that the air barrier contractor, general contractor or roofer seal the tops of the walls with either:

   a. Temporary measures (application of self-adhered membrane or flashing) with long UV exposure

   b. Complete the roof installation in all areas where the air barrier is going to be installed on the wall surfaces below

CONCLUSION

Protecting the walls from moisture during construction is the most effective means in preventing damage to the installed air barrier. Proceeding with the installation of the air barrier assembly when walls have NOT been protected from moisture ingress from above is taking a huge gamble on the performance and durability of the installed system.

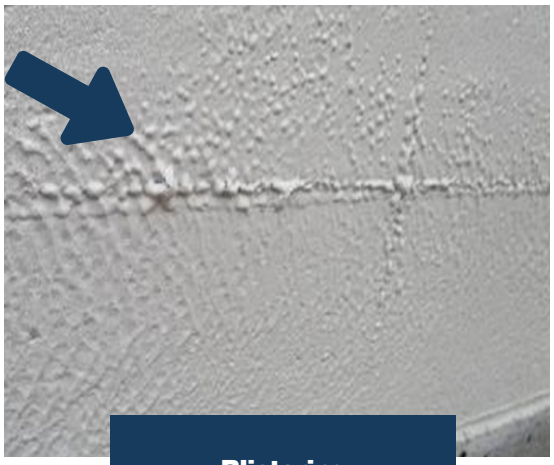
ABAA has published a paper on this subject, and you can access it here:

https://www.airbarrier.org/wp-content/uploads/2020/11/Wet-and-Wild-How-Wet-CMU-Can-Screw-Up-Your-Air-Barrier.pdf

***A second position paper dealing with backside parapet conditions will be published by the end of this year.**

TYPICAL WATER DAMAGE FROM WATER GETTING INTO WALLS

Fluid-applied Membrane De-bonding from Wall



Blistering

TEMPORARY COVERINGS ON TOP OF WALLS

Use of Self-adhered Membrane to Cover Top Course of CMU, Options Include Flexible Stainless Steel Adhesive Flashing