

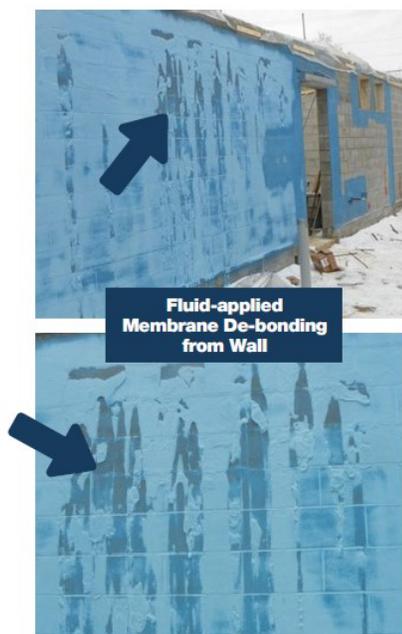
## Title: Stop Water from Getting into Your Walls During Construction

### Big Idea

Proper protection of the top of walls is crucial to prevent water ingress and subsequent damage to air barrier installations, as failure to do so can lead to delamination, blistering, and loss of adhesion of air barrier materials, necessitating costly removal and replacement, highlighting the importance of ensuring substrate protection through specifications, pre-construction meetings, and temporary measures during construction.

### Overview

- The substrate condition, including moisture content, temperature, cleanliness, and surface profile, significantly impacts the effectiveness of air barrier systems.
- Failure to protect the top of walls during construction can lead to water ingress, causing severe damage like delamination and blistering of air barrier materials, necessitating costly removal and replacement.
- To mitigate risks, ensure the project's specification mandates wall protection, conduct pre-construction meetings to outline responsibilities, and implement temporary measures such as self-adhered membranes or completing roof installation in relevant areas.



### Conclusion

Failing to protect walls from moisture during construction poses a significant risk to the performance and durability of the installed air barrier system.

air barrier  
**abaa**  
association of  
america

### Position Paper

<https://www.airbarrier.org/wp-content/uploads/2021/08/D-115-040-rev-0-ABAA-Position-Paper-1-Stop-Water-From-Getting-On-Walls.pdf>

# POSITION PAPER

JULY 2021

## 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:

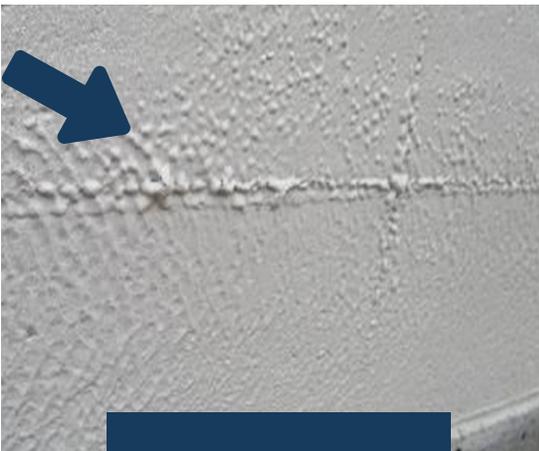
<https://www.airbarrier.org/wp-content/uploads/2020/11/Wet-and-Wild-How-Wet-CMU-Can-Screw-Up-Your-Air-Barrier.pdf>

**\*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**

