

The Air Barrier Association of America Inc.

ABAA Quality Assurance Program Overview



The Air Barrier Association of America (ABAA) consists primarily of stakeholders in the building enclosure industry. ABAA is focused on leading the industry into the future in a progressive and professional manner.

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What and Who is ABAA?

The Air Barrier Association of America is a nationally incorporated not-for-profit association. It was officially incorporated in March 2001. The association consists of a wide variety and cross section of industry members including:

- Air Barrier subcontractors
- General Contractors / Construction Manager
- Manufacturers of materials and components
- Design Professionals (architects, engineers, specifiers)
- Testing & Inspection Agencies
- Consultants
- Testing Laboratories

“Develop a Professional Air Barrier Industry”



ABAA's mission statement is to promote the use and benefits of air barrier systems, educate the public about air barrier systems and develop a professional air barrier specialty trade and industry dedicated to the installation of effective air barrier systems in buildings on a nationwide scale.

The objectives of the association are:

- to promote building performance
- to develop air barrier standards and specifications
- to coordinate the interests of the industry
- to develop training and technology transfer programs
- to inform and educate architects, engineers, specification writers, developers, contractors, building owners and the public on the benefits
- to develop the requirements for air barrier technicians
- to conduct and commission research about air barriers
- to advocate the advantages and benefits of professional air barrier installations
- to liaise between all parties and groups who are interested and/or would benefit from professional air barrier installations.

What Is Quality Assurance?

What is the Quality Assurance Program and how is it administered?

The ABAA Quality Assurance Program is a program that has been developed to increase the level of installed quality of air barrier systems in the United States and provide greater assurance to the building owner and design professional.

The Quality Assurance Program was developed by Building Professionals and was based upon the successes of other programs that were developed by Building Professionals. The program is based upon the principles of ISO 9000. In Boston, where the program was piloted, a large cross-section of industry had input into the Quality Assurance Program, which included contractors, manufacturers, architects, engineers, building owners, utilities and consultants. After approximately 2 years of review and refinement by industry stakeholders, the ABAA Quality Assurance Program was endorsed by ABAA and launched in Massachusetts. This Quality Assurance Program consisted of a number of components, all working together to raise the level of quality in the field.

Program consist of the following:

- Research and Development
- Standards and Specifications
- Manufacturer Licensing
- Contractor Licensing
- Installer Training and Licensing
- Installer Site Verification
- Independent Auditing
- Documentation and Reporting
- Database Tracking
- Appeal Process and Conciliation



Quality Assurance Program

The program encompasses a variety of initiatives that include prequalification requirements of contractors and installers, training and education, a method for installers to self-test their work, a paper trail of the entire installation process, an independent auditor to conduct audits to confirm compliance to the QAP program and ABAA specifications and a process to deal with the loss of license by an individual participating in the program.

ABAA contracts out the day-to-day management of the Quality Assurance Program to an unbiased 3rd party who has the expertise and credibility to manage the program. This also resolves any issues with the credibility of the program by having the program run by an **unbiased 3rd party organization**. Therefore alleviating any concern of “an old boys club”. Once the rules are set and published, all individuals are required to meet the same standards and requirements. The Quality Assurance Program is updated on an on-going basis in order to streamline processes or enhance the program. Although ABAA has direct input into making recommendations for changes

to the Quality Assurance Program, it is only after a thorough review performed by the Air Barrier Quality Assurance Program, along with actual “users” of the program, that changes are made and implemented. “Users” of the program consist of non-biased individuals such as architects, engineers, building owners or government agencies.

Again, this was put in place to ensure the program would be fair for all parties involved and have a value to the building owner and design professional. A Quality Assurance Program dictated simply by contractors involved in the association was not deemed to provide a program that would take the interests of the building owners and design community to heart. The program has been developed for all parties involved, including architects, engineers, building owners, contractors and manufacturers.



“Specify Quality” With Confidence

What do I actually get when I specify ABAA ?

When you specify ABAA, you receive a level of comfort that the job will be done right. Work is performed by individuals and companies that are educated and have the experience to do a proper job. But it does not stop there! The program consists of a number of things to increase that level of comfort. It is not simply a fact of individuals and companies becoming licensed, but in order to keep the license they must meet the defined standards and procedures that are put in place and published on an ongoing basis. The license is something that can be taken away and not something that requires only a minimal commitment to professionalism.

When you specify ABAA you receive the following:

- **ABAA contractors will bid on the work.**

You are assured of contractors that have the experience, know-how and track record of performing good work. The Design Professional is not required to pre-qualify or try to determine who is qualified and who is not. ABAA Accredited Contractors must meet minimum requirements for insurance, bonding, employ certified installers, possess the necessary equipment to install and test their work, be trained in the Quality Assurance Program and sign a licensing agreement dictating professional conduct and the right to terminate their license should they not meet the requirements of the program.

- **Educated labour force.** An ABAA Certified Installer will perform the installation. These installers have the related trade experience and are trained in various air barrier system applications. Installers need a minimum 3000 hours of documented work experience in air barriers or related trades in order to qualify for certification. Certification is provided for

various materials. If an installer has experience in self adhered membranes, but has never installed sprayed urethane foam, the installer would only be certified in self-adhered membranes. Each ABAA specified project is required to have at least one Certified Installer on site, at all times. It is not a case of having a site foreman trained that is only on the site infrequently, if at all. Certification is provided to the actual individuals that are performing the work and they must be on-site at all times.

Certified Installers are required to take upgrading course as deemed necessary, or at least every five years in order to retain their license. The entire certification process is handled by a 3rd party firm.

On the job

- Certified Installers, on a daily basis, will perform 2 types of testing on the application of air barrier materials. First of all, installers perform a visual inspection of the substrate prior to the application of membrane to confirm the substrate is in accordance with the manufacturer's instructions. The installer will then perform a visual inspection on the completed air barrier for that day and fix any deficiencies (things such as “fish mouths” on seams, unsealed penetrations, etc). The second test the installer performs is an adhesion test based on the principles of ASTM D 4541 “Standard Test Method for pull-off strength of coatings using portable adhesion testers”. The installer performs at least one test on the area installed on that day.
- The Certified Installer is also required to document the entire installation process on “Daily Work Sheets”. The “Daily Work Sheet” provides the following information: listing of installers, project name, type of air barrier installed, air barrier product name and lot/ batch number, primer product name and lot/batch number, substrate type, substrate

preparation required, installation locations (gridlines, elevations, etc), and test results of visual, and adhesion testing. For visual inspection, the installer identifies where he has visually inspected, how many deficiencies found and actions taken to correct the deficiencies. For adhesion testing, the installer records where the testing was completed, the testing result and whether the test pad let go from the membrane, or the membrane let go of the substrate. The documentation is submitted to the Air Barrier QAP office on a monthly basis for database tracking and review by the quality assurance administrators. This paperwork is also forwarded to the design professional upon request.

Project Audits

- On every project that is specified ABAA, an ABAA audit is conducted. The number of audits performed on a specific project is determined on the square footage of the air barrier material being installed. For example, for projects with a square footage of up to 10,000 square feet, one ABAA audit is conducted. Other audits may be conducted due to non-compliance by the contractor or installer. In all cases, the cost of the audit is the responsibility of the Accredited Contractor.

Additional audits can be performed if specified in the contract documents or if the architect or general contractor request more. The scope of the ABAA Auditor is to confirm compliance to the Quality Assurance Program and manufacturer instructions. This includes confirming if the installer is meeting the manufacturer's instructions for substrate preparation, compatible materials, actual application and repair procedures.

The audit process and inspectors are overseen by Building Professionals. The ABAA Auditors are typically industry consultants, engineers, or auditor agencies. The first job of the Auditor is to help the installer with any concerns.

The second job of the Auditor is to document compliance to the Quality Assurance Program and manufacturer's instructions. Once the audit is completed, it is forwarded to the Building Professionals office for review, filing, assessment of demerit points (if applicable), and dissemination to the Contractor, Installer and other parties as deemed necessary.

Conflict Resolution

- If there is a concern on a project by the Design Professional or Owner, a dispute resolution is in place to deal with any problems to make sure things are done right. ABAA has a system in place for complaints about either Accredited Contractors and Installers or in the case where an Accredited Contractor wishes to appeal the assessment of demerit points or the loss of license. ABAA will do it's best to resolve any issues within its power.

Did you know that when you specify ABAA:

- Your project is tracked from start to finish
- That every daily work sheet is reviewed and data-based
- That at least one ABAA audit is conducted
- You get the best contractors and installers
- Only qualified contractors can bid on your projects
- That a 3rd party organization is managing the program
- That you have someone to call if you have a problem with the air barrier contractor or installer
- We are here to support and assist you

Benefits of Specifying ABAA?

Specifying ABAA is a win-win for all parties involved including building owners, design professionals, contractors and the manufacturers. The benefits to each include:

Building Owners

- Level of comfort in the quality of workmanship
- Decrease chance of high maintenance costs to repair or retrofit premature degradation of the building envelope
- Decrease in energy costs
- Decrease in chance for mold/mildew growth
- Better indoor air quality
- Decrease in possibility of premature degradation of building

Design Professionals

- Pre-qualified quality contractors
- Level of comfort in quality of installation
- Trained and educated installers working on-site (not in the office!)
- Reduction in liability
- Provide the best for their clients
- Documented installation records
- Reduced site time
- Assistance with problems and conflict

Contractors / Installers

- Level playing field for industry
- Reduction in possible call backs
- Education and technology transfer to actual installers
- Able to perform quality workmanship
- Processes in place for ISO 9000 registration

Manufacturers

- Correct installation of their products
- Training system in place for their products and systems
- Reduction in call-backs
- Reduced site time
- “Real Life” feedback on field installations

Construction Managers / General Contractors

- Risk Management
- Preconstruction mock-ups
- Installation as an integrated wall component
- Experienced Subcontractor
- Enhanced Schedule
- Field inspection, testing and auditing

What Other Things Does ABAA Do?

Although the Quality Assurance Program is a big part of ABAA, we do a lot more. ABAA constantly strives to provide educational program with “real-life” content to installers and the design community. Training is a large mandate of the association. ABAA puts on workshops for design professionals, general contractors and industry professionals on a variety of air barrier topics. The association has made educational presentations to local chapters of the Construction Specifications Institute, local AIA chapters and to other associations.

ABAA also works with groups such as ORNL – Oak Ridge National Laboratories in regards to research; CCMC, NABA and other agencies.

ABAA has developed several specifications for use by design and specification writers and will continue to update and enhance this document. The association is looking to develop details that are encompassing of realities and sequencing on the construction site.

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For more information visit our web site or email us:
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