

NABA

National Air Barrier Association

The National Air Barrier Association

Quality Assurance for the Air Barrier Industry



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What And Who Is Naba?

WHAT AND WHO IS NABA

The National Air Barrier Association is a national, federal and incorporated not-for-profit association. It was officially incorporated on September 8, 1995. The association consists of two classes of membership, voting and non-voting. Voting members consist of the following categories:

- Contractors
- Manufacturers
- Design Professionals
- Testing & Inspection Agencies
- Consultants

The non-voting category is open to any individual interested in participating. The association is governed by a Board of Directors, that are appointed each year by the members of the association at their Annual General Meeting. Directors are elected for a term of 3 years. From the elected Board of Directors, an Executive is formed. The executive consists of the following individuals:

- Chairman
- Vice-Chairman
- Secretary/Treasurer



“ Professional Air
Barrier Industry”

The association also has a number of committees to deal with various aspects of the industry. The Certification Committee is charged with reviewing the Quality Assurance Program and Certification requirements for contractors and installers and making recommendations to the quality assurance program provider and manager. The Technical Committee has been formed to deal with on-site technical issues that are identified as part of the Quality Assurance Program. This committee will look at various technical issues and work in conjunction with manufacturers and research authorities to find solutions and further the industry.

Objectives Of The Associations

WHAT ARE THE OBJECTIVES OF THE ASSOCIATION

The objectives of NABA are the following:

- To promote building performance
- To develop air barrier standards and specifications
- To coordinate the interests of practitioners, contractors, manufacturers and suppliers
- To develop training and technology transfer programs for the industry
- To inform and educate architects, engineers, specification writers, developers, contractors, building owners, and the public on the benefits of air barriers
- To develop a trade designation and requirements for an air barrier technician
- To conduct and commission research about air barriers
- To advocate the advantages and benefits of professional air barrier installations
- To liaison between all persons and groups who are interested and/or who would benefit from professional air barrier installations
- To do all thing incidental and conducive to the attainment of these objectives

What Is Quality Assurance?

HOW IS THE ASSOCIATION MANAGED?

The National Air Barrier Association does not have any employees. NABA has retained the services of the bpc Building Professionals Consortium to manage their day-to-day association affairs. BPC manages a number of trade associations in Canada and the United States. Their head office is located in Winnipeg, MB, which serves as NABA's mailing address and office. BPC has managed NABA since its inception in 1995 and continues to do so today.

WHAT IS THE QUALITY ASSURANCE PROGRAM AND HOW IS IT ADMINISTERED ?

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

The Quality Assurance Program was developed by the bpc Building Professionals Consortium and was based upon the successes of other programs that were developed by BPC. The program was based upon the principles of ISO 9002. In Manitoba, 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 NABA Quality Assurance Program was endorsed by NABA and launched in Manitoba.



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 encompassed a variety of initiatives that included pre-qualification 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, a independent auditor to conduct audits to confirm compliance to the QAP program and



NABA specifications and a process to deal with the loss of license by an individual participating in the program.

Again, NABA contracted out the day-to-day management of the Quality Assurance Program to the bpc Building Professionals Consortium who had the

expertise and credibility to manage the program . This also resolved 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 were set and published, all individuals would be required to meet the same standards and requirements. The Quality Assurance Program that was developed by BPC is updated on an on-going basis in order to streamline processes or enhance the program. Although NABA has direct input into making recommendations for changes to the Quality Assurance Program, it is only

after a thorough review is performed by BPC, 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 NABA ?

When you specify NABA, 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 on-going basis. The license is something that can be taken away and not something that requires only a minimal commitment to professionalism.

WHEN YOU SPECIFY NABA, YOU RECEIVE THE FOLLOWING:

- **NABA LICENSED 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. NABA Licensed 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**

A NABA Certified Installer will perform the installation. These installers have the experience and are trained in various air barrier system applications. Installers need a minimum 3000 hours of documented and verified work experience in order to qualify for certification. Installers are required to attend training a pass a written test with a minimum average of 80%. The installer is then required to have a practical assessment of his on-site application skills. Inspectors observe the installer applying various membranes and provide a pass criteria based upon a predetermined performance requirement. Certification is provided for various materials, but not all materials. If an installer has experience in self-adhered membranes, but has not ever installed torch applied membranes, the installer would only be certified in self-adhered. Each NABA 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 forman 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.

“Specify Quality” With Confidence.

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 the Professional Skills Development Institute for Energy Conservation (PSDI), who acts as an unbiased 3rd party.

ON THE JOB

- Certified Installers, on a daily basis, will perform 3 forms 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 in accordance with 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 third test the installer performs is an air leakage test in accordance with ASTM 1186 "Standard practices for Air Leakage site detection in building envelopes and Air Retarder Systems". This test is conducted on penetrations, seams and laps through the air barrier assembly.
- The Certified Installer is also required to document the entire installation process on "Daily Work Sheets". The "Daily Work Sheet" provides the following information: listed 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, adhesion and air leakage 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. For air leakage testing, the installer records how many tests were conducted, how many deficiencies were found and the corrective action taken. The documentation is submitted to the NABA office on a bi-monthly basis for database tracking and review by the quality assurance administrators. This paperwork is also forwarded to the design professional upon request.

“Specify Quality” With Confidence.

PROJECT AUDITS

- On every project that is specified NABA, a NABA audit is conducted. The number of audits performed on a specific project is determined on the contract value of the project. For example, for projects with a value of less than \$50,000, one NABA 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 Licensed Contractor.

The scope of the NABA 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 inspection process and inspectors are overseen by the Energy Conservation Contractors Warranty Corporation (CWC), which provides quality auditing services for a number of associations and government departments. The NABA auditors are typically industry consultants, engineers, or inspection agencies. The first job of the inspector is to help the installer with any concerns.

The second job of the inspector is to document compliance to the Quality Assurance Program and manufacturer instructions. Once the audit is completed, it is forwarded to the CWC 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. NABA has in place a system for both complaints about Licensed Contractors and Installers and a system in place in the case where a Licensed Contractor or Installer wishes to appeal the assessment of demerit points or the loss of license. NABA will do its best to resolve any issues within its power.

Did you know that when you specify NABA:

- Your project is tracked from start to finish
- That every daily work sheet is reviewed and data-based
- That at least one NABA 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 Naba?

WHAT ARE THE BENEFITS OF SPECIFYING NABA?

Specifying NABA 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 components

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

- 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

What Other Things Does Naba Do?

WHAT OTHER THINGS DOES NABA DO ?

Although the Quality Assurance Program is a big part of NABA, we do a lot more. NABA constantly strives to provide educational program with "real-life" content to installers and the design community. Training is a large mandate of the association. NABA puts on workshops for design professionals, general contractors, industry professionals on a variety of air barrier topics. Where you aware that locally, NABA received an award for their commitment to education by the Winnipeg Chamber of Commerce, Economic Development Winnipeg and the Winnipeg Foundation? The association has made educational presentations to local chapters of the Construction Specifications Canada across Canada, local Building Envelope Councils across Canada, local Building Officials Associations, local architects associations and design firms.

NABA also works with groups such as Canada Mortgage and Housing Corporation (CMHC) and the National Research Council of Canada (NRC), the Canadian Construction Materials Center (CCMC) on various industry issues and research projects in the air barrier industry.

NABA is also working on the development of National Standards for products and installation for air barriers, vapour barriers and breathable membranes.

NABA has developed a specification 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.

Did you know ?

That the requirements for NABA licensed contractors is included in the National Master Specification published by Public Works Canada

- Just about every architect has specified NABA in Winnipeg
- That building owners such as Manitoba Housing Authority, Public Works Canada and Department of National Defense have specified NABA
- The American Air Barrier Association was formed in 2000 in Boston, MA and have adopted a similar program for the entire US market based on the success of NABA.
- You probably had input into the development of the program or your comments have helped to better the program.

Industry Issues...Naba's Position On...

NABA'S POSITION ON INDUSTRY ISSUES

Anytime NABA develops an official position on an industry issue, it is in writing! Everything NABA does or endorses is in writing and public knowledge. If you are being told that this is what NABA requires, ask for it in writing from the association. We do not believe in providing information that can be easily misrepresented.

DOES NABA PROVIDE A 3RD PARTY WARRANTY ?

Simply put, at this time, No. The NABA QAP program is a form of risk management. The more things that are in place to assure a level of quality, the less the risk of something going wrong with your project. The NABA QAP in no way provides a 3rd party guarantee that the air barrier materials has been installed perfectly. The number of initiatives that make up the Quality Assurance program help do decrease the chance something will go wrong. The whole intent of the program is to realize that we do not live in a perfect world, and the contractor and installers are in no way perfect. The program realizes this and focuses on giving the installers the knowledge and ability to correct any mistakes and to catch any problems prior to being covered up with other envelope components. Problems will arise if you specify NABA or not. There is just a greater chance a problem will arise if you do not specify NABA.



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