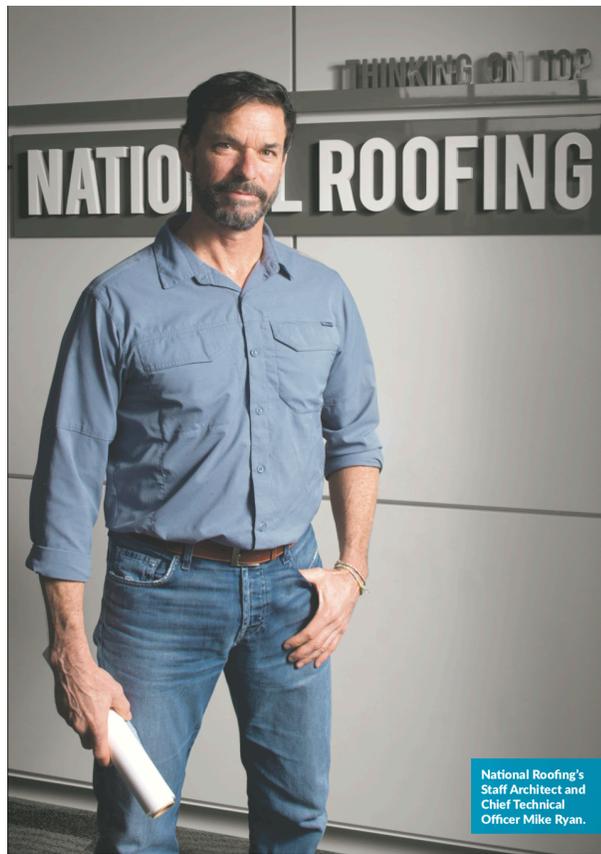


RAMBLINGS FROM A RECOVERING ARCHITECT DECEMBER 2017



ABOUT NATIONAL ROOFING

National Roofing Company is headquartered in Albuquerque and serves the entire state of New Mexico as the premier commercial roofing and waterproofing contractor. National Roofing specializes in state-of-the-art systems for challenging roofing projects and has a full-time service department available 24 hours a day, 7 days a week.

ABOUT MIKE RYAN

Mike Ryan has been involved in the construction industry and the design profession in one way or another since 1986. As Staff Architect and Chief Technical Officer at National Roofing, he gets to combine field experience with design expertise and brings with him an understanding of business, detailing and project types. His facility in coordinating with the entire project team comes from his former life as a principal of a local architectural firm.

WHAT IS A “FULLY ADHERED” ROOF?”

BY MIKE RYAN, CHIEF TECHNICAL OFFICER AND STAFF ARCHITECT
NM ARCHITECT 4037, MEMBER OF NRCA AND ICC

I have heard this term used in reference to several different types of low slope roof assemblies.

The industry is trying to wean itself from the word "fully" because when describing roofing, it can refer to a membrane that is adhered to a substrate (usually a cover board or rigid insulation), as well as to a roof system whose every component is held fast to every other component by gluing or fusion. "Fully" can also be used to establish an expected level of bond between the components.

When describing a roof membrane, "fully adhered" would imply 100% adhesion to the substrate; a percentage that is not realistic due to small voids in the contact surfaces of the materials. When describing an assembly without fasteners, the insulation boards in that assembly are commonly bonded to the deck using low rise foam adhesive in a serpentine pattern. The pattern spacing varies depending on the uplift resistance required (usually 6-18" on center), and in neither case is "full", or 100% adhesion achieved.

The NRCA publishes many of the industry standards, and they prefer the use of the term 'Adhered' to 'Fully Adhered'. Although there is no current industry consensus on terminology, an '**adhered membrane**' would better describe a membrane held fast to the component below by glue or fusion, and an '**adhered assembly**' could describe an assembly in which there are no fasteners.

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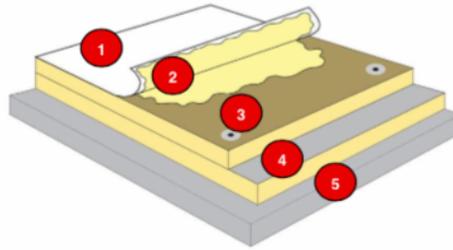
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NEXT TIME

Unless there are specific roof-related topics you would be more interested in, the next newsletter will dig further into FM Global requirements, wind speed and wind uplift forces. Message me!

Mark Graham is the National Roofing Contractors Association's (NRCA) Vice President of Technical Services and has written extensively on this and other subjects. You can read more by clicking the link to his article "[The fully-adhered misnomer](#)" from Professional Roofing, January 2017 - available with permission by the author.



1. Firestone UltraPly™ TPO Membrane
2. ~~Fully~~ Adhered with Bonding Adhesive
3. Mechanically Attached or Adhered Cover Board (Optional)
4. Mechanically Attached or Adhered Insulation
5. Concrete Deck

Diagram above from Firestone Building Products. In current lingo, this might be better described as an adhered TPO membrane over a mechanically attached, or adhered assembly to deck. Sometimes the assemblies are hybrid, consisting of both mechanical and adhered components. Mechanical attachments are often less expensive, but are sometimes avoided to limit thermal bridging or to minimize damage to the deck or components below the deck.