A close-up, high-contrast photograph of a rhinoceros's head and upper body. The rhino has a large, textured horn and a wrinkled, light-colored skin. It is looking slightly to the left. The background is dark and out of focus.

STOMP OUT FLUTTER

 **Waterproofing Systems**
RhinoBond[®]
INDUCTION FASTENING SYSTEM

Non-penetrating fastening system for thermoplastic roofing

Welcome to
RhinoBond



RhinoBond Portable Bonding Unit

With the advance of wide membranes, flutter has become a greater concern to building owners and contractors alike.

The RhinoBond System from Waterproofing Systems provides a non-penetrating fastening solution that more evenly distributes the wind load.

RhinoBond is an alternative insulation and membrane attachment system for TPO and PVC membranes. This all-in-one system uses the same fastener and plate to secure the membrane and the insulation to the deck without penetrating the roofing material. The result is a Factory Mutual-approved system that does not create any point of entry for moisture, requires fewer fasteners, fewer seams and provides superior wind uplift performance.



Non-penetrating fastening system for thermoplastic roofing

REVOLUTIONARY

TECHNOLOGY

RhinoBond is based on patented electromagnetic induction welding technology called SINCH®. Just activate the RhinoBond tool directly over the specially coated plate to bond the underside of the membrane to the plate. The heating process takes approximately five seconds depending on the ambient temperature, membrane thickness and power source. A weighted magnetic RhinoBond cooling clamp placed on the welded plate for 60 seconds assures a strong bond.

THINK OUTSIDE THE SEAM

For years mechanically attached system installation was based on in-seam fastening patterns. With the RhinoBond system, you have to think differently.

Instead of estimating the number of insulation and seam fasteners, simply determine the number of RhinoBond fasteners required to achieve the desired rating, based on the wind uplift requirements. An FM 1-90 rating, for example, requires six fasteners per 4 x 8 insulation board, or 19 fasteners per square. There are no seam fasteners required with the RhinoBond system.

Since the fastening points are spread across the entire roof in a grid pattern, rather than being concentrated on the edge of the membrane, the uplift load is distributed more evenly. As a result, there is less point loading on each fastener, enabling the system to achieve higher wind ratings with fewer fasteners. All while providing improved rooftop performance and better aesthetics!



RHINOBOND PRODUCTIVITY

RhinoBond typically uses 25% to 50% fewer fasteners when compared to traditional in-seam fastening. An experienced operator can weld five plates per minute or 300 plates per hour. At six plates per 4 x 8 foot board, that's approximately 16 squares per hour of production for each RhinoBond tool.

ONE SIZE FITS ALL

Most thermoplastic roof assemblies require extra fastening around the perimeter of the roof and at large penetrations where wind uplift forces can be the strongest. Typically, perimeter half-sheets are needed for these areas.

With RhinoBond technology, membrane width is no longer a factor. Instead, a tighter fastening pattern in these areas provides additional attachment points for full-width membrane, thus providing enhanced security with fewer seams.

FASTER DRY-IN

In some installations, membrane seams can be welded before all of the RhinoBond plates are bonded to the membrane. This enables the contractor to get a larger area of the building dry and to reassign skilled workers to complete other parts of the installation before welding the membrane to all of the plates.



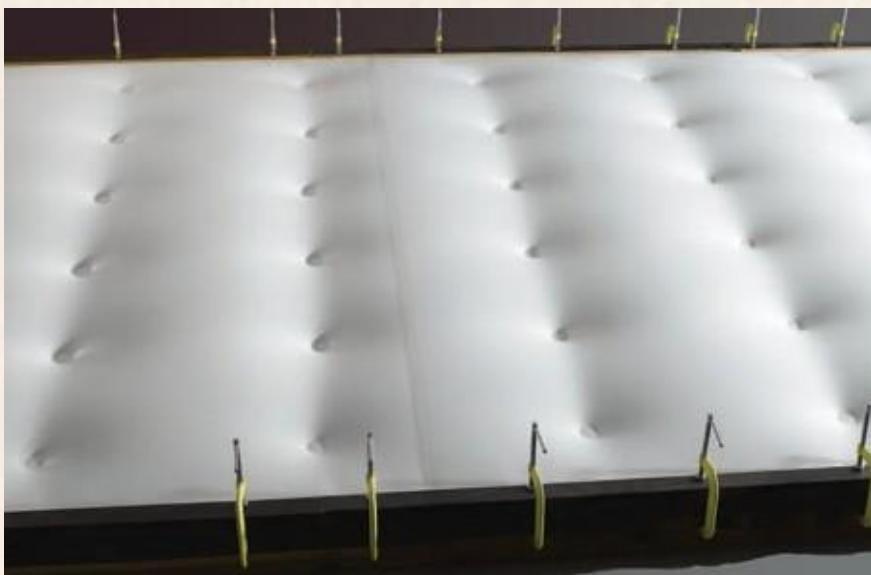
A BETTER ALTERNATIVE FOR METAL RETROFITS

RhinoBond is also an ideal option for metal roof retrofit applications. Because the system does not require in-seam fastening, the membrane seams do not have to be positioned exclusively over the purlins. This eliminates the need for specialty purlin-width sheets, simplifies the installation and reduces waste.

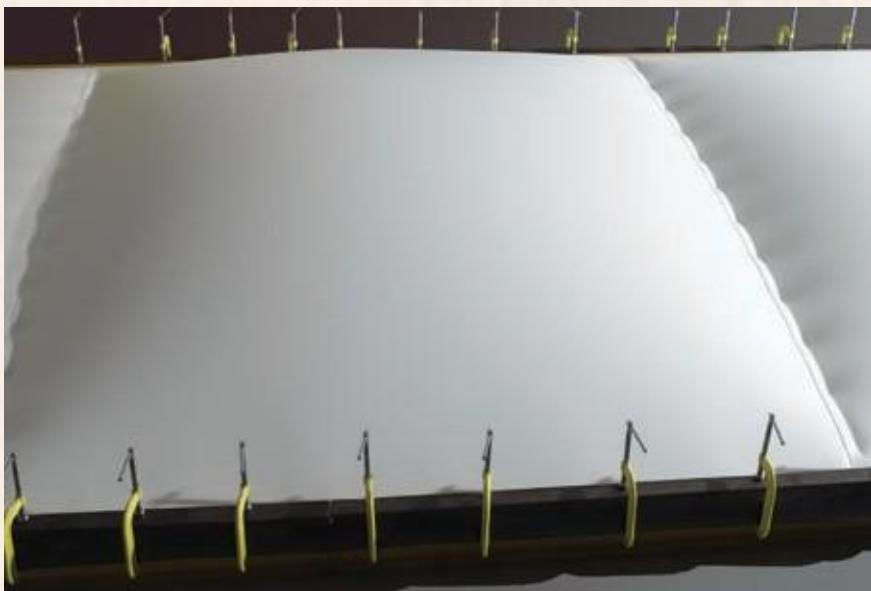
TESTING

RhinoBond has achieved an FM 1-210 wind resistance rating. In static testing, the system resists over 500 lbs of force.

RhinoBond is compatible with polyisocyanurate, DensDeck™ and Securock™ as well as any insulation that will not melt by the induction welding process. Induction welding should not be used with extruded polystyrene, EPS or foil faced insulation boards.



The RhinoBond welded membrane spreads the wind load evenly across the roof (above) as opposed to the traditional in-seam fastening method (Below).



FASTENERS & PLATES

The RhinoBond system includes 3-inch round specially coated plates, sold in pails of 500. Plates are available for TPO and PVC membranes. RhinoBond plates can be installed with several Waterproofing Systems fasteners and meet FM 4470 criteria for corrosion resistance.



INDUCTION WELDING TOOL

The RhinoBond tool is lightweight, adjustable, and easy to use and handle. It operates on standard 110 volt power sources and typically draws 1,300 watts. A 5,000 watt generator in good condition with two 20A GFCI protected circuits will run two tools.

The RhinoBond System includes the Induction Welding Tool and six cooling clamps, along with convenient carrying cases for both.



APPROVALS

The RhinoBond System is Factory Mutual approved.



RhinoBond tools are available exclusively through Waterproofing Systems

For additional information please call 0508 2 WATERPROOF (2 92837)



waterproofing systems

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