



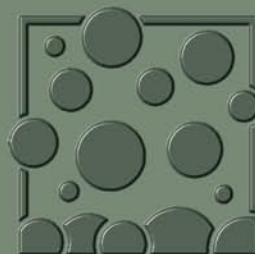
Defy the Elements



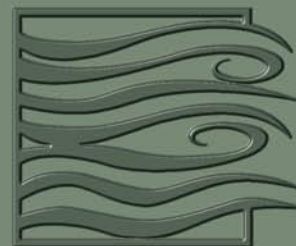
W A T E R



F I R E



H A I L



W I N D

Single Ply Roofing

Single Ply Solutions for Metal Roof Retrofit



Don't Just Patch Up Your Metal Roofs – Rejuvenate Them

Improve Your Entire Roof With Lasting PVC and TPO Solutions From Johns Manville (JM)



Before



After

How Much Have You Spent Trying to “Fix” Your Leaky Metal Roof?

The wearing effects of time, weather, rusting, UV exposure, expansion and contraction will inevitably take their toll on a metal roof. If you're working or storing important things inside, leaks can be a frustrating problem that requires more than a temporary fix.

Do you recognize these problems?

- Leaky penetrations
- Failing seams
- Interior condensation

JM can help you solve them by offering:

- Heat-welded seams for leak-free security
- A variety of thicknesses, depending upon your needs
- The RhinoPlate™ System, which provides added wind ratings, fewer fasteners and faster installation
- White and “ES” (energy saving) membrane colors for energy efficiency
- Coated metal available for complete applications
- No exposed metal to rust
- Dry, comfortable building interiors

“Band-Aiding” a Project Can Be Costly

It's understandable to try to save money with quick solutions. Waterproof coatings are often tried as inexpensive options. Unfortunately, they provide a temporary answer at best. Uninsulated alternatives are generally applied only on problem areas, without addressing the underlying reasons for leakage problems or improving the integrity of the roof. Within a short time, you're spending more money, looking for another answer.

JM Provides a Long-Term PVC or TPO Solution – a Quality Alternative That Upgrades the Original All-Metal Roof

Johns Manville has addressed the problems of aging roofs with a comprehensive system specifically designed for retrofitting metal roofs. Without the cost of replacing or tearing off the existing roof, you can add important insulation, inhibit rusting and reduce expansion/contraction with a roof that can be guaranteed to last up to 15 years.*

* Contact your JM sales or technical representative for specific details and assistance.

A Schnuck's grocery store in Missouri was experiencing trouble with their standing seam metal roof — it was leaking. The solution was easy — add mechanically attached JM polyiso insulation followed by fully adhered PVC from Johns Manville. “It worked out very well. The owner is quite happy with both the products and the installation.”

John Ulrich, specifying engineer, NovaGroup, Inc.

These Simple Steps Can Be Taken to Improve Your Roof's Integrity



Install insulation between ribs with JM ENRGY 3® polyisocyanurate.



Lay approved cover board (i.e., Invinsa Roof Board) over the insulation and ribs, then mechanically fasten.



Roll JM PVC or JM TPO single ply membrane into place.



Mechanically fasten

A Johns Manville Single Ply Roof Will Benefit Your Whole Building – and Your Business

Add up the advantages for your building, your business and your tenants with an insulated JM single ply roofing system:

- Protect the people, materials and equipment inside
- Reduce maintenance costs
- Realize potential money savings on heating and cooling bills
- Reduce interior condensation
- Establish a more comfortable interior environment
- Minimize rain and hail noise
- UL®-rated system available
- Protect yourself with guarantees that are available for both materials and workmanship
- Enjoy renewed peace of mind

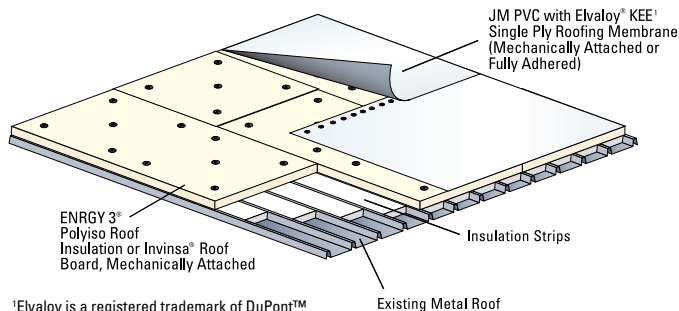
How the JM Single Ply System Works.

JM PVC and JM TPO systems can generally be applied directly over an existing metal roof. It begins with insulation cut to fit the valleys of the existing metal roof. This can provide additional R-value to the building as well as support for the layer of insulation above.

Next, mechanically attach an approved cover board or insulation board in a choice of thicknesses, depending on your R-value requirements. ENRGY 3 polyiso insulation helps maintain a more consistent building temperature and can reduce expansion and contraction of the metal roof. Invinsa® Roof Board is a lightweight cover board that can help reduce labor costs.

Finally, the single ply membrane is attached over the insulation or cover board. The membrane provides a watertight barrier with strength, puncture resistance and UV protection. The membranes (PVC and TPO) may be heat welded, for seams that are even stronger than the membrane itself.

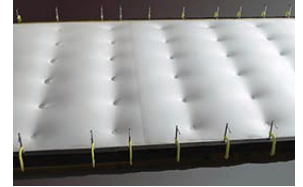
The end result is a tough, durable system with exceptional weatherability.



Sample JM PVC Single Ply Roofing System. For Use Over JM-Approved Decks.

For Added Savings Use the JM RhinoPlate System

Metal roof retrofit projects with single ply systems can be tricky. A common application is to mechanically fasten the membrane to the purlins, which are typically spaced 5' (1.52 m) on center. This means that contractors either have to purchase special widths of membrane for the application, or use a wider material (i.e., 6' (1.83 m) or 6.5' (1.98 m) wide) and leave extra material buried in the seam. In addition, the membrane has to be installed parallel to the purlins. JM RhinoPlate™ is an alternative attachment solution. The advanced induction welding technology bonds the membrane directly to specially coated plates that are installed to secure the insulation or cover board to the roof or purlins. The result is a nonpenetrating installation with enhanced wind resistance. RhinoPlate offers a solution where contractors do not need narrow or special width materials to match the purlin spacing, and the membrane can be oriented either parallel or perpendicular to the ridge, which makes the installation process easier. JM has best-in-class codes in the industry with the JM RhinoPlate System. For metal retrofit projects, when the fasteners rows are spaced 5' (1.52 m) apart, the fasteners can be installed 18" (46 cm) on center, giving extremely high wind uplifts with the fewest fasteners possible.



Get a Guaranteed System From the Manufacturer You Know and Trust

Your new roof is only as dependable as the people behind it. Johns Manville has been a recognized leader in commercial roofing for more than 150 years. When installed by a JM Peak Advantage® Roofing Contractor, this system can qualify for one of the most comprehensive guarantees in the roofing industry.

With the highest quality products, single-source convenience, the industry's best materials and labor guarantee and complete technical support, JM is the logical choice for roofing performance and value.

Our U.S. EPA ENERGY STAR® Rating Benefits You and the Environment.

White and ES JM single ply membranes are designed to meet or exceed all ENERGY STAR guidelines for energy efficiency. Testing on the white JM PVC membranes showed an SRI (Solar Reflectance Index) of 106. These cool roofs reduce the cooling and heating load and, consequently, can reduce building utility costs.



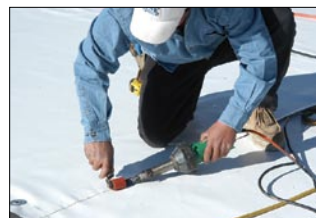
Install membrane.



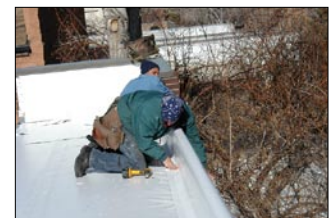
Hot-air weld field seams.



Custom flash penetrations, then treat with a hot-air welder.



Install edge detail.



PRODUCT WARRANTIES

Johns Manville designs roofing products that work together to provide a one-source comprehensive roofing system solution. Total roofing system guarantees are available under the JM Peak Advantage Guarantee program. To learn more about our standard guarantee terms and conditions, visit our Web site at www.jm.com or talk to your local JM sales representative.

JM Peak Advantage Guarantees are available only on qualified JM roofing systems containing JM roofing products. JM standard product terms and conditions will apply to include a one-year limited product warranty. Limited product warranty information is available at www.jm.com/About Us/US Terms and Conditions.

Peak Advantage Contractor Program



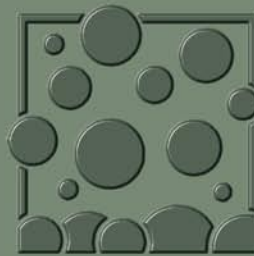
To ensure quality workmanship and top-notch installation, JM offers its Peak Advantage Contractor Program. Contractors selected to participate are proven to be best of class, having lived up to the highest performance standards. These contractors have access to JM's strongest guarantees. To be assured of the best possible results on the roofing system you specify, make sure it's installed by a JM Peak Advantage Contractor.



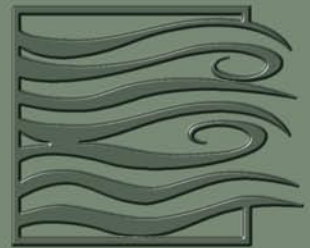
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