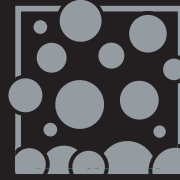




W A T E R



F I R E



H A I L



W I N D

Defy the Elements

Mechanically Attached SBS Systems
Exceptional Performance in High Wind Conditions

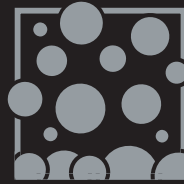




W A T E R



F I R E



H A I L



W I N D

A refined formula designed to protect against the elements

Wind Uplift

Wind uplift is an important measure of a roof system's performance. It is measured in pounds per square foot (psf) uplift resistance. FM Global (FM) is a widely recognized agency that measures wind uplift. FM reports pressures from 60 psf to 999 psf (FM 1-60 to FM 1-999).

The significance of wind uplift is illustrated below. When wind moves across an airplane's wing (Illustration 1), it creates low pressure above the wing and high pressure below. This creates a strong lifting force. These same forces act on a building's roofing system (Illustration 2). High winds passing over a building structure create low air pressure above the roof. The difference in air pressure outside the building (low) and inside (high) creates a lifting force on the roofing system.

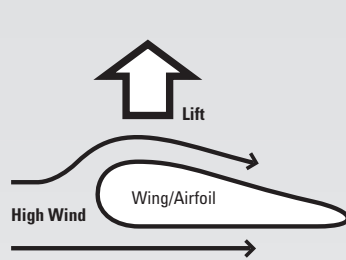


Illustration 1

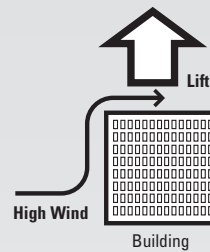


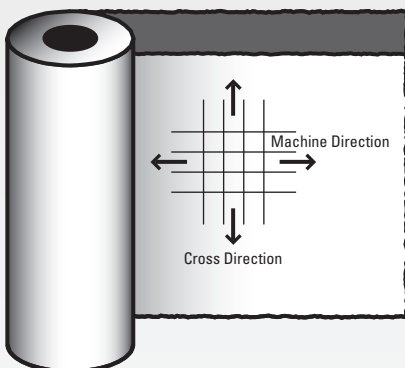
Illustration 2

Designing for Exceptional Performance

How do you overcome these powerful forces? A combination of steel, SBS, and engineering.

JM Mechanically Attached SBS Systems combine popular single ply membrane application techniques with the storied redundancy and proven toughness of SBS modified roofing, in 2, 3, or 4 plies. The SBS membrane is mechanically anchored into the structural deck of the building with heavy-duty steel screws and plates. This secure attachment improves high wind uplift performance.

The workhorse of this system is the JM base sheet. DynaLastic 180® S is made with a tough, polyester mat with an inlaid fiber glass matrix. The mat creates a tear-resistant "grip" around the embedded fasteners, preventing the sheet from pulling over the fastener plates in high wind conditions. The sheet will stretch and bellow, but stays firmly secured to the roof deck and remains watertight. It is the perfect application for the rubber-like properties of SBS-modified asphalt and the high elongation, tear resistant polyester mat.



DynaLastic 180 S

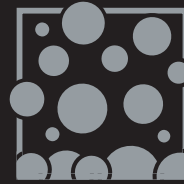
JM's bi-directional scrim gives you the advantages of polyester, while providing tensile strength and dimensional stability in all directions. Other mats reinforce in the machine direction only, or not at all.



W A T E R



F I R E



H A I L



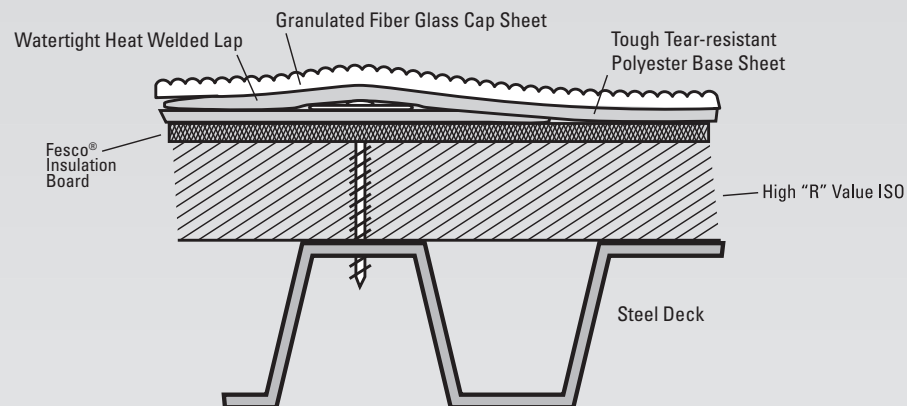
W I N D

JM Mechanically Attached SBS System

Examples of FM Approved JM Systems over Steel Decks

Note: Some FM approvals require additional deck reinforcement for steel deck applications.*

Sample Detail



Construction #1 FM Uplift 135

- Minimum 2" ENRGY 3® mechanically attached with five fasteners per board
- DynaLastic 180 S fastened WITHIN the lap with 2" barbed seam plates and High Load Fasteners 12" o.c.
- DynaWeld™ Cap heat-welded



Construction #2 FM Uplift 225

- Minimum 2" ENRGY 3 mechanically attached with five fasteners per board
- DynaLastic 180 S fastened WITHIN the lap with 2" barbed seam plates and High Load Fasteners 6" o.c.
- Optional 1-2 plies DynaWeld™ Base heat-welded
- DynaWeld Cap heat-welded



Construction #3 FM Uplift 300

- Minimum 3/4" Fesco, loose laid
- Minimum 1.5" Nailboard™ mechanically attached with five fasteners per board
- DynaLastic 180 S fastened OVER the lap with 2 3/8" eyehook plates and High Load Fasteners 6" o.c.
- 1-2 plies DynaWeld Base heat-welded
- DynaWeld Cap heat-welded



Construction #4 FM Uplift 390

- Minimum 3/4" Fesco, loose laid
- Minimum 1.5" Nailboard mechanically attached with five fasteners per board
- DynaLastic 180 S fastened OVER the lap with 2 3/8" eyehook plates and High Load Fasteners 12" o.c.
- Fastened in the field, two rows of 2 3/8" eyehook plates and High Load Fasteners 12" o.c.
- 1-2 plies DynaWeld Base heat-welded
- DynaWeld Cap heat-welded

* Contact Johns Manville Technical Services for complete details.

High Wind Uplift, Flexible Application

Johns Manville Mechanically Attached SBS Systems over steel decks offer the strength and security of built-up roofing, but with higher FM wind uplift ratings. The right products – heavy-duty steel fasteners, durable insulation and proven modified bitumen – combined with high-quality application methods, result in exceptional performance for high wind conditions. Fewer installation steps and fewer materials, including absence of asphalt hot-mopping, allow for easy application and additional flexibility. All this, without compromising quality.

System Components

DynaLastic 180 S is a polyester/glass scrim-reinforced SBS (Styrene-Butadiene-Styrene) modified bitumen sheet. It incorporates the features of a tough, non-woven polyester mat and bi-directional glass scrim reinforcement. The glass scrim offers dimensional stability not afforded by polyester-only reinforced products and minimizes end lap creep after installation.

DynaWeld Cap FR is a fire-resistant SBS modified bitumen sheet incorporating the features of a strong fiber glass mat with a blend of SBS rubber, high quality asphalt and fire-retardant additives.

ENRGY 3 is a rigid roof insulation board composed of a closed cell polyisocyanurate foam core bonded in the manufacturing process to universal fiber glass reinforced facers. JM supports NRCA Bulletin #9 in recommending that a cover board of Fesco Board or 1/2" Retro-Fit™ Board be installed over foam insulations in hot membrane systems.

Fesco Board is a homogenous insulation board, composed of expanded perlite, blended with selected binders and fibers. It is intended for use as a low thermal roof insulation board and general purpose cover board for use over closed cell foam insulation boards in BUR, modified bitumen and some single ply roofing systems.

High Load Pre-Assembled Fasteners are #15 fasteners, with a corrosion-resistant coating that exceeds FM Global Approval Standard #4470 corrosion requirements. High Load Pre-assembled Fasteners are assembled with FM Global approved, High Load Plates.

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 website 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



In order to ensure quality workmanship and installation, JM offers its Peak Advantage program. Contractors selected for the Peak Advantage program are proven to be best of class, having achieved 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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