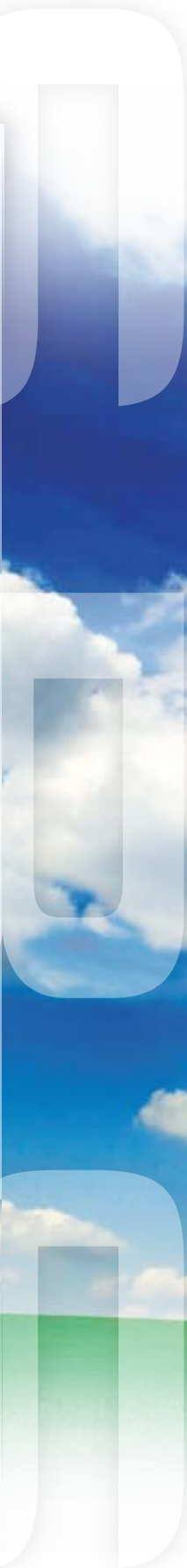


# MBTECHNOLOGY

SUPERIOR ROOFING & UNDERLAYMENT SYSTEMS



THE HIGHEST ELEMENT OF PROTECTION



## ADVANTAGES OF SBS MODIFIED ASPHALT

Buildings today incorporate lighter-weight structural materials than those built years ago. Contemporary roofing systems should, therefore, have the ability to withstand the increased substrate movements and deflections. Durability of the roof can be assured through good planning and by the correct specification and installation of the waterproofing system.

Asphalt is still the best-known waterproofing material. However, it has poor aging characteristics, becomes brittle in cold weather, is fluid in hot weather, and has little resistance to fatigue. Elastomeric compounds such as SBS (styrene-butadiene-styrene) substantially improve these properties. SBS rubber is flexible and has the memory to return to its original form. The addition of SBS rubber to asphalt increases the flow characteristics and improves the low-temperature flexibility and fatigue resistance of roofing asphalt. The end product is a high-performance, 2-3 ply system.

Some of the advantages of the system are:

### FLEXIBILITY OF APPLICATION METHOD:

**Heat Welded:** Ideal for areas where it is impractical to use hot asphalt (e.g., hospitals, schools, and high-rises).

**Cold Adhesive:** Minimizes the presence of any odor during the project.

**Hot Asphalt:** The most economical way to apply the membrane. Better suited for new construction and larger projects.

### EASE OF MAINTENANCE:

Unlike single ply membranes which need to be maintained by "authorized contractor", SBS Modified Asphalt membranes can easily be maintained by in house maintenance staff.

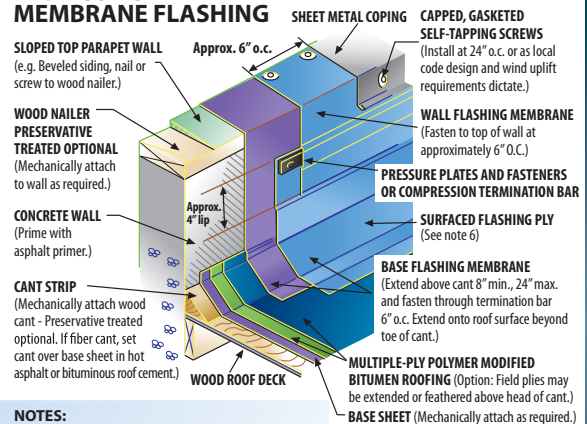
### BETTER THAN SINGLE PLY MEMBRANES:

Compared to single ply membranes, which are applied in one layer of 40-80 mils thickness, SBS modified systems are applied in 2-3 ply applications, ranging from 220 mils to 300 mils thickness. The redundancy of multiple layers reduces the chance of workmanship error and increases the ability to withstand traffic and numerous penetrations within the roofing system.



### HIGH CONCRETE PARAPET MEMBRANE FLASHING

MB-8



#### NOTES:

- 1) This detail may be used where wall heights are 24"-48" above roof surface. However, for walls 24" and taller WSRCA suggests sheet metal wall cladding to be considered in lieu of polymer modified bituminous membrane wall flashings per detail MB-8a.
- 2) On walls greater than 36" high, membrane wall flashing sheets should be strapped (i.e., installed vertically).
- 3) Dimensions shown are recommended minimums and are intended to be approximate to allow for reasonable tolerances due to field conditions.
- 4) Attach top of membrane wall flashing approximately 6" o.c.
- 5) See Appendix A for gauge or thickness guide for sheet metal flashing.
- 6) Surfaced flashing ply is recommended to have white or other light reflecting surface to minimize heat gain and thermal movement.
- 7) Certain components, as depicted in these details, may not be provided by the roofing contractor.

## layfastSBS® IS SUPERIOR TO FELT AND TYPE II BASE. HERE'S WHY:

**VERSATILE:** ICBO (ICC) approved (ESR-2799) and ideal for Tile, Shake, Shingle, Torch APP, and B.U.R. application.

**ECONOMICAL:** For pennies more, offer a superior product to your customer, distinguish your bid, and increase your chance of securing the job.

**LESS DECOMPOSITION:** Fiberglass reinforced (inorganic). Doesn't rot like felt.

### STEEP OR FLAT ROOF APPLICATIONS

**MORE ELASTIC:** SBS rubberized asphalt provides a more pliable and elastic membrane. Minimizes buckles and wrinkles by laying flatter and smoother...saving time.

**DURABLE:** Side laps do not curl up over time. Does not scuff or tear easily and is less susceptible to damage from other trades.

## layfastSBS® IS FLEXIBLE

The addition of SBS rubber to asphalt gives *layfastSBS* an elastomeric property which is not available in common felt. *layfastSBS* also contains a higher percentage of asphalt for increased waterproofing protection. Its inorganic fiberglass reinforcement eliminates the rot and deterioration associated with saturated felt. *layfastSBS* also exceeds ASTM D226 standards.

*layfastSBS* TU70 - The heaviest grade of *layfastSBS* underlayment (70 lb). This product is especially well suited for projects requiring extra protection. It can be used in lieu of two 30 lb felt, thus saving labor.

### layfastSBS®

QUALIFIES FOR  
LEED CERTIFICATION  
CREDITS:

Material & Resources (MR) Credit 5.1  
(FOR PROJECTS IN CALIFORNIA ONLY)

## HERE'S HOW *layfastSBS*® STACKS UP TO FELT:

	FELT	<i>layfastSBS</i> UNDERLAYMENT	<i>layfastSBS</i> ADVANTAGE
<b>BREAKING STRENGTH</b>	MD40	MD65	<b>Higher Tear Resistance</b>
<b>COMPOUND</b>	Asphalt	Rubberized Asphalt	<b>Increased Longevity</b>
<b>WEIGHT lbs/100 sq ft</b>	26 lb	37-70 lb	<b>More Protection</b>
<b>MOISTURE CONTENT</b>	4.1% max.	.42%	<b>More Water Resistant</b>

Technical Information	<i>layfastSBS</i> TU35	<i>layfastSBS</i> TU43	<i>layfastSBS</i> TU70
<b>WEIGHT PER ROLL</b>	78 lb	88 lb	70 lb
<b>WIDTH/LENGTH</b>	39-3/4" / 64' 9"	39-3/4" / 64' 9"	39-3/4" / 32' 6"
<b>COVERAGE PER ROLL</b>	2 Squares	2 Squares	1 Square
<b>ROLLS PER PALLET</b>	33	33	36

YOU DON'T USE OLD TECHNOLOGY AND TOOLS FOR ANYTHING ELSE, THEN WHY SPECIFY FELT FOR YOUR UNDERLAYMENT?



# You Can't Afford to Underspec the Underlayment!

## SPECIFY *layfastSBS*

You have a reputation for quality. Don't sacrifice that reputation to save a few dollars on roof underlayment. Though your clients might not see the difference, they'll realize the difference for years to come.

*layfastSBS* is ideal underlayment for tile, shake and shingle. It's the perfect upgrade to common 30/40 lb felt.

So don't let a drip dampen your reputation. Keep your beautifully designed roofs reliably leak-free for years to come. Spec MBTechnology's *layfastSBS* for spectacular results.

### FOR ARCHITECTS AND SPECIFICATION WRITERS:

The following is a suggested specification to be inserted in the section where the underlayment is specified.

Underlayment shall be *layfastSBS* TU70 as manufactured by MBTechnology (800/621-9281). The membrane shall comply with all requirements as outlined in ASTM D226 standards for underlayment. Test shall be done by an independent laboratory. Minimum requirements.

<b>MODIFIER REINFORCEMENT WIDTH WEIGHT BREAKING STRENGTH MOISTURE CONTENT</b>	SBS Rubberized Asphalt Inorganic Fiberglass Mat 39-3/4" Minimum of 70 lb/100 sq ft MD 65 lb/in ASTM D226, CD 46 lb/in less than .5% ASTM D226
---	--

### MBTECHNOLOGY HAS DEVELOPED VARIOUS ACCESSORIES TO COMPLEMENT ITS PRODUCTS.

**CO-24:** An elastomeric coating which enables the final membrane to comply with Title 24. Rate of application is 3 gallons/square.

**ADHESIVE:** A specially formulated cold process adhesive. MBT Adhesive contains non-asbestos fibers and special blend enhancing modifiers. To be used with MBTechnology cold process systems. Can be applied with brush, roller or squeegee. Rate of application is approximately 1-1/2 to 2 gallons/square.

**MECHANICALLY ATTACHED SYSTEM (MA):** MBTechnology has developed a two-ply system, whereby the first layer (a polyester reinforced membrane FT120PSA) is applied directly over the polyisocyanurate insulation without the need for protection board. This is achieved by laying the sheet dry and mechanically fastening the side and end laps (in accordance with FM requirement). The laps are then heat welded. The cap sheet is then fully adhered to the base in cold or via heat welding. The assembly has high wind uplift security and reduces the installation cost.



### CONTINUING EDUCATION

MBTechnology in conjunction with Ron Blank & Associates has developed an online C.E. program that qualifies for 1.0 LUHSW Credit.

#### COURSE DESCRIPTION:

- Basic understanding of the SBS Modified Roofing System
- The advantage of SBS over single ply and B.U.R.
- California Cool Roof, Title 24 requirement
- The importance of specifying a high performance SBS Modified Underlayment

TO TAKE THE COURSE PLEASE GO TO [www.mbtechnology.com](http://www.mbtechnology.com)

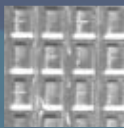
# metalflexSBS

## METALFLEX SBS COOL WHITE 24

To address the on-going demand for energy efficient roofing systems, MBTechnology has made available the Metalflex SBS membrane, featuring a white, reflective, aluminum surface.

This unique foil-faced surface absorbs much less heat than does a conventional roofing system, thus resulting in reduction of a building's energy consumption. In most cases, this allows the building owner to use a smaller air conditioning unit.

Metalflex SBS Cool White 24 has reflectivity characteristics, which exceed the initial requirements set forth by the United States Environmental Protection Agency Energy Star® standard and by the Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24 of the California Code of Regulations. Metalflex SBS Cool White 24 reflects 75% of solar energy away from the roof surface.



Metalflex SBS is also available in uncoated aluminum finish, which meets the requirement of Energy Star® rated roof membranes.

	ENERGY STAR®	CALIFORNIA TITLE 24	MF160WAL SBS COOL WHITE 24
<b>Reflectivity</b> (ASTM C1549)	> 0.65	> 0.70	0.759
<b>Emissivity</b> (ASTM C1371)	N/A	> 0.75	0.840

Metalflex SBS Cool White 24 also qualifies the roofing assembly as a high performance green building structure eligible for the Leadership in Energy and Environmental Design Sustainable Site (LEED SS) Credit 7.

### APPLICATION

Metalflex SBS is applied in a two-ply configuration over insulated deck and three-ply over wood/light weight concrete. Metalflex SBS offers a flexibility of application with hot asphalt or heat welded application.

### FIRE RATING

The majority of single-ply and modified asphalt systems have a fire rating limited to a slope of 2:12. The embossed aluminum foil offers exceptional spread of flame resistance, which qualifies Metalflex SBS for a Class A fire rating with no slope restriction. This makes it ideal for projects with a barrel roof or for areas with slopes greater than 2:12.



### **fastorchSBS**

An extremely flexible torch-applied SBS membrane. Fastorch SBS is superior to APP membranes because the asphalt is modified with Styrene Butadiene Styrene (SBS) a synthetic rubber, providing it with a rubberized property. APP membranes are manufactured by blending the asphalt with Atactic Polypropylene (APP), which is basically asphalt that has been modified with plastic. The addition of SBS to rubber makes the membrane easier to apply than other products, with better adhesion to metal and end laps.

Fastorch SBS is available in smooth and granulated surfacing.

Various reinforcement options are available: This includes polyester, glass, and dual reinforced membranes.

### **superflexSBS**

A highly elastic polyester-reinforced membrane. The flexibility of the product makes it ideal for flashing and single ply applications. Superflex membranes can be applied over one layer of Layflat SBS/Layfast SBS base, and it qualifies for a 10 year warranty. Since only one application of asphalt/adhesive is needed, there is tremendous savings in labor and asphalt costs. Superflex membranes are available in smooth and granulated surfacing.

Various reinforcement options are available: This includes polyester and dual reinforced (polyester and glass reinforced) membranes.

Superflex SBS offers versatility of application with hot asphalt or cold adhesive.

### **layflatSBS**

Our family of SBS-modified base sheets. Layflat SBS minimizes buckling, wrinkling, and fish mouths associated with unmodified base/plies. Layflat SBS is used as a base/ply, and is covered with one of our cap sheets.

Layflat SBS is available in four weights, 25, 40, 50, and 60 lbs/square, to meet most job conditions.

Various reinforcement options are available: This includes polyester, glass, and fiberglass scrim.

Layflat SBS offers versatility of application with hot asphalt, cold adhesive, or mechanical fasteners.

### **selfstickSBS**

A full line of self adhesive membranes used for waterproofing foundations, shower pans and tile underlayment. Also available as a base for SBS/APP membranes.

### **layfastSBS**

A superior and competitively priced alternative to traditional 30 and 40 lb. organic felt. The addition of SBS rubber to asphalt gives Layfast an elastomeric property that is not available in common felt. Layfast SBS contains a higher percentage of asphalt for increased waterproofing. Its inorganic fiberglass reinforcement eliminates the rot and deterioration associated with saturated felt.

Layfast SBS is available in three weights, 35, 43, and 70 lbs/square. It can be used in lieu of 30 and 40 lb felt as an underlayment under shingle, tile, and metal roofs.

Layfast SBS is ICC (formerly ICBO) approved and complies with ASTM D226 standards, which most tile, shingle, and metal manufacturers require.

### **fireguardSBS**

A technological breakthrough in the roofing industry. Class A/B fire rated over combustible and non-combustible decks, without need for protective coatings or gravel. Fireguard SBS achieves this rating since it is manufactured with fire retardant chemicals.

Various reinforcement options are also available: This includes polyester, glass, and dual reinforced membranes.

Fireguard SBS offers versatility of application with hot asphalt, cold adhesive, or heat-welded application.

### **metalflexSBS**

An elastomeric membrane manufactured with an embossed foil surfacing and reinforced with a woven fiberglass mat. Metalflex SBS is available in standard aluminum and white aluminum. The aluminum top surface offers unparalleled reflectivity and weather ability. It is Class A fire rated over combustible deck with no slope restrictions.

### **supercapSBS**

MBTechnology economical lightweight cap sheet. Used in conjunction with 2 or 3 layers of Layflat SBS base sheet. This system offers a superior alternative to BUR at a competitive price.

Various reinforcement options are also available: This includes glass and fiberglass scrim.

Supercap SBS offers versatility of application with hot asphalt or cold adhesive.

