



# SEBS

## MOPPING ASPHALT

The Ideal Choice for Peak Performance



# THE IDEAL CHOICE FOR PEAK PERFORMANCE

*How does Malarkey Roofing Products® engineer superior roofing systems to consistently surpass average performance levels?*

## THE MALARKEY ADVANTAGE

Malarkey SEBS performance tests speak for themselves, consistently surpassing the standards to create a superior product.

For nearly 40 years, Malarkey has manufactured a comprehensive line of quality thermoplastic modified asphalt roofing products.

Malarkey collaborated with thermoplastic manufacturers in the polymer industry to develop **950 SEBS**, an extraordinary mopping grade asphalt. The addition of SEBS asphalt frontiered our impressive line of thermoplastic modified asphalt roofing membranes and shingles.

## DEMANDING ENVIRONMENTS ARE NO PROBLEM

Malarkey's SEBS thermoplastic modified asphalt excels in the most extreme environments and conditions. Test after test, SEBS radically eclipses other roofing systems in key areas of performance.

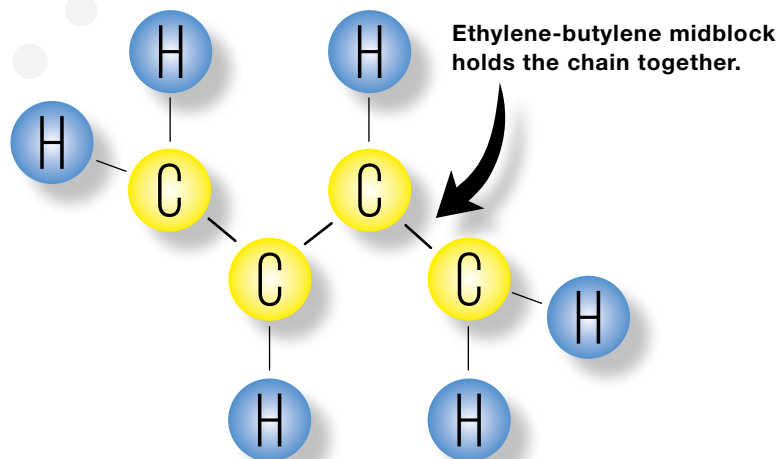
### Features and Benefits:

- Softening points
- Heat degradation resistance up to 520°F
- Cold temperature flexibility
- Tensile strength
- Elongation
- Fatigue life
- Self-healing characteristics
- UV resistant

High Speed Disperser blends SEBS pellets into asphalt to create SEBS for testing the physical properties.

## WHAT IS THE "E" IN SEBS?

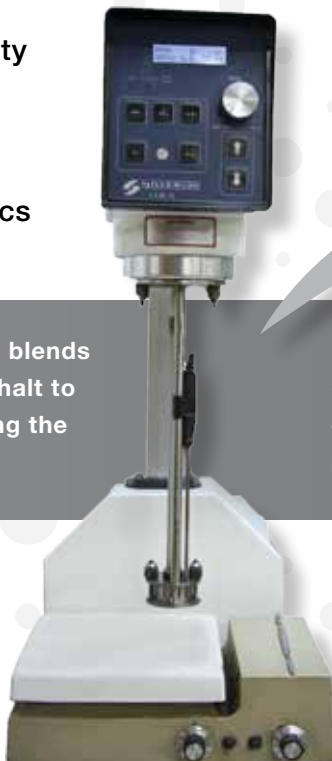
SEBS is an elastomeric block copolymer. It consists of SBS polymers linked together through a hydrogenation process, with an ethylene-butylene midblock, yielding a thermally stable and ultraviolet resistant polymer.



The reinforcing effect of the styrene bond gives SEBS its high tensile strength, while the thermoplastic ethylene butylene midblock gives the compound its elasticity.

The blending of SEBS thermoplastic and asphalt results in a reinforced physical three-dimensional cross-linking network. The SEBS polymer is a true thermoplastic elastomer enabling expanding asphalt to contract to its original form.

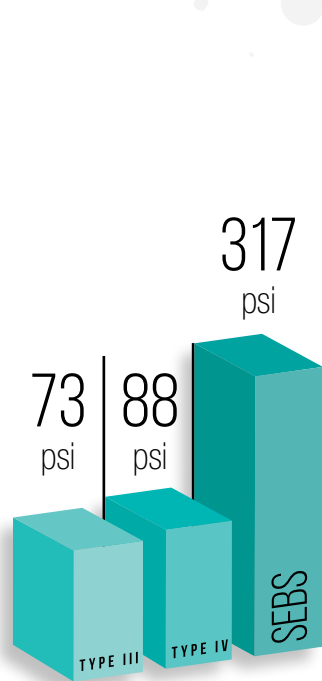
Dynamic Shear Rheometer (DSR) tests how the SEBS compound will handle roof related stresses.



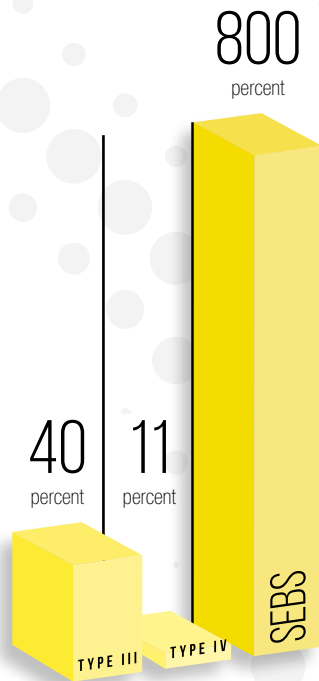
# SEBS

“The engineered thermoplastic elastomer network of asphalt and SEBS translates into excellent waterproofing properties for superior performance.”

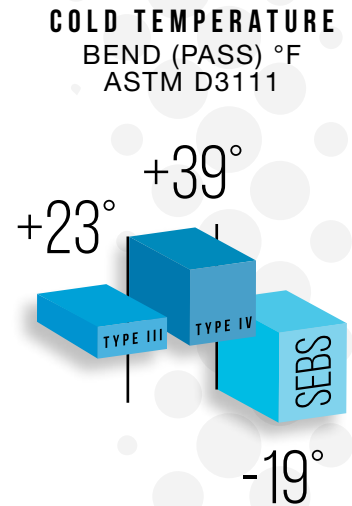
## ALL ASPHALTS ARE NOT CREATED EQUALLY



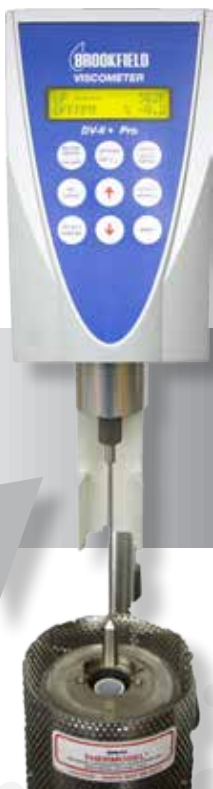
TENSILE STRENGTH  
ASTM D412



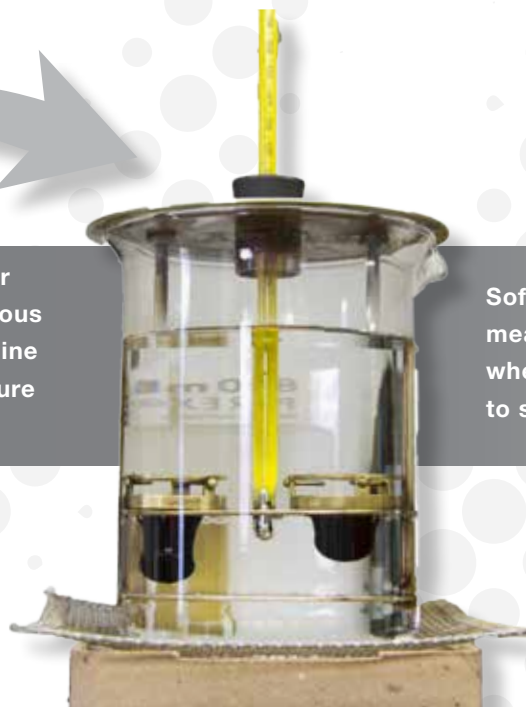
ELONGATION (%)  
ASTM D412



COLD TEMPERATURE  
BEND (PASS) °F  
ASTM D3111



Thermosel® Viscometer measures the equiviscous temperature to determine the mopping temperature for proper adhesion.



Softening Point Apparatus measures the temperature where the material begins to soften.

# SEBS

The Pinnacle of Performance

PHYSICAL PROPERTIES	ASTM SPECIFICATION D6152	TYPICAL RESULTS
SOFTENING POINT	185°F to 275°F (85°C – 135°C)	210°F
PENETRATION @ 32°F (0°C)	6 DMM, MIN	10 DMM
PENETRATION @ 77°F (25°C)	20-60 DMM	45 DMM
FLASH POINT	500°F (260°C)	550°F
EQUIVISCIOUS TEMPERATURE	450°F ± 25°F (232°C ± 3.9°C)	440°F
TENSILE ELONGATION @ 77°F (25°C)	750%, MIN	1000%
ELASTIC RECOVERY	80%, MIN	95%
LOW TEMPERATURE FLEXIBILITY, PASS AT	20°F (-7°C)	PASS

As manufactured, 950 SEBS Mopping Asphalt meets the requirements of ASTM D6152.



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