PRODUCT DESCRIPTION & BENEFITS
Top Tuff is a polymer latex resin emulsion designed to modify both asphalt based and coal tar based pavement sealer emulsions. Top Tuff imparts outstanding toughness, locks in aggregate, and provides a blacker color to the cured, dried film.

USES
Top Tuff is designed to enhance the performance of both asphalt based and coal tar based emulsion pavement sealers.

COMPOSITION
Top Tuff is a water based copolymer latex emulsion.

SIZES
Top Tuff is available in 55 gallon drums and 5 gallon pails.

COLOR
Pavement sealer fortified with Top Tuff dries blacker.

LIMITATIONS
SealMaster pavement sealers fortified with Top Tuff shall not be applied when temperature is expected to drop below 50°F at any time within a 24 hour period after application.

TECHNICAL DATA
Top Tuff meets the performance requirements of ASTM D 4866 specification for latex additives used in coal tar pitch emulsion (CTPE) pavement sealer.

ENVIRONMENTAL CONSIDERATIONS
Top Tuff is an environmentally friendly water based latex emulsion containing less than 20 grams per liter volatile organic content (VOC).

PHYSICAL/CHEMICAL PROPERTIES
Top Tuff meets the following material requirements when tested in accordance with ASTM D 4758 and ASTM D 2939. (See chart below)

<table>
<thead>
<tr>
<th>ASTM</th>
<th>TEST DESCRIPTION</th>
<th>RESULT</th>
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</thead>
<tbody>
<tr>
<td>Material</td>
<td>Material shall be homogenous and show no separation or coagulation that cannot be overcome by moderate stirring.</td>
<td>PASSES</td>
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<thead>
<tr>
<th>Chemical &amp; Physical Analysis</th>
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<tbody>
<tr>
<td>Non Volatiles %</td>
<td>50 - 60%</td>
<td>PASSES</td>
</tr>
<tr>
<td>Ash Non Volatiles %</td>
<td>.10 - .12%</td>
<td>PASSES</td>
</tr>
<tr>
<td>Specific Gravity 25°C</td>
<td>Approx. 1.08</td>
<td>PASSES</td>
</tr>
<tr>
<td>Flexibility</td>
<td>No Cracking or Flaking</td>
<td>PASSES</td>
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INSTALLATION
Surface must be clean and free from all loose material and dirt. Pavement surface repairs should be made with a suitable hot or cold asphalt mix. Cracks should be filled with SealMaster hot pour or cold applied crack fillers.

METHODS
SealMaster pavement sealers fortified with Top Tuff shall be applied by either pressurized spray application equipment or self-propelled squeegee equipment. Pressurized spray equipment shall be capable of spraying pavement sealer with sand added. Equipment shall have continuous agitation or mixing capabilities to maintain homogeneous consistency of pavement sealer mixture throughout the application process. Self-propelled squeegee equipment shall have at least 2 squeegee or brush devices (one behind the other) to assure adequate distribution and penetration of sealer into bituminous pavement. Hand squeegees and brushes shall be acceptable in areas where practicality prohibits the use of mechanized equipment.

MIXING PROCEDURE
With mixing tank agitator turning, add proper amount of water to pavement sealer concentrate. Following the addition of water, add 2% Top Tuff based upon pavement sealer concentrate (2 gallons of Top Tuff per 100 gallons of pavement sealer concentrate). When mix begins to thicken add sand slowly. Agitate thoroughly before and slowly during sealer application. Dilute Top Tuff 1:1 with water before adding to sealer mix to reduce polymer shock and promote uniformed dispersion.

APPLICATION
For optimum performance and durability apply 2 coats of properly mixed SealMaster pavement sealer fortified with Top Tuff. A third coat may be applied to high traffic areas such as entrances, exits, and drive lanes.

APPLICATION RATE
Apply mixed pavement sealer fortified with Top Tuff at a rate of .11 to .13 gallon per square yard (70-82 square feet per gallon) per coat.

NOTE: Application rates may vary somewhat due to pavement age and porosity.

ESTIMATING MATERIAL REQUIREMENTS
A minimum of 2 gallons of Top Tuff for every 100 gallons
of SealMaster pavement sealer concentrate.

PRECAUTIONS
Both surface and ambient temperature shall be a minimum of 50°F. Temperature shall not drop below 50°F in a 24 hour period following application. New asphalt surfaces should be allowed to cure a minimum of four weeks under ideal weather conditions (70°F) before applying SealMaster pavement sealer fortified with Top Tuff. KEEP OUT OF REACH OF CHILDREN. Do not store unopened drums or pails in freezing temperatures.

WARRANTY AND DISCLAIMER
The statements made on this technical data sheet are believed to be true and accurate and are intended to provide a guide for approved application practices. As workmanship, weather, construction, condition of pavement, tools utilized, and other variables affecting results are all beyond our control, the manufacturer warrants only that the material conforms to product specifications and any liability to the buyer or user of this product is limited to the replacement value of the product only. The manufacturer expressly disclaims any implied warranties of merchantability or fitness for a particular purpose.