

1. PRODUCT NAME

SealMaster Polymer
Modified Coal Tar Sealer
(PMCTS)

2. MANUFACTURER

SealMaster has a nationwide network of manufacturing and distribution facilities.

Phone: 800-395-7325
www.sealmaster.net

3. PRODUCT DESCRIPTION & BENEFITS

SealMaster Polymer Modified Coal Tar Sealer (PMCTS) is a premium quality coal tar emulsion pavement sealer fortified with cross-linking rubber polymers and special surfactants. PMCTS is job-mixed with specifically graded aggregate and applied at a rate of 55-57% solids (unlike conventional sealers that are applied at 40-43% solids). The aggregate provides a safe, skid-resistant surface for both pedestrian and vehicle traffic. PMCTS dries faster than conventional pavement sealers that are diluted with water prior to application. PMCTS protects pavement from oxidation, moisture intrusion, fuel, and oil. PMCTS's deep, rich black color gives old, oxidized pavement a "like new" surface that melts snow and ice faster, and reduces cleaning and maintenance costs.

Basic Uses: SealMaster PMCTS is designed to beautify and protect asphalt pavement surfaces including parking lots, airports, driveways, and roadways.

Composition: PMCTS is a polymer-modified, clay stabilized coal tar pitch emulsion pavement sealer fortified with specialty surfactants to promote superior adhesion and durability. PMCTS is job mixed with select aggregate to produce a superior skid-resistant wearing surface.

Sizes: SealMaster PMCTS is available in 4,000 gallon bulk tankers, 55-gallon drums, and 5-gallon pails.

Color: PMCTS dries to a deep, rich black color.

Limitations: SealMaster PMCTS shall not be applied when temperature is expected to drop below 50°F at any time within a 24 hour period after application.

4. TECHNICAL DATA

SealMaster PMCTS meets the requirements of ASTM D 5727, RP 355e, ASTM D 490, FAA P627, P628, P630 and P631 specifications for coal tar pitch emulsion (CTPE) pavement sealer.

Environmental Considerations:

SealMaster PMCTS does not contain asbestos. PMCTS is an environmentally friendly water based pavement sealer containing less than 50 grams per liter volatile organic content (VOC).

Physical/Chemical Properties:

SealMaster PMCTS is a premium quality pavement sealer that meets the following material requirements when tested in accordance with ASTM D 140, ASTM D 466, ASTM D 490, ASTM B117, ASTM D 529, ASTM D 2939, and ASTM D244 procedures:

5. 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. Treat all grease, oil, and gasoline spots or stains with SealMaster Petro Seal or Prep Seal.

Methods: SealMaster PMCTS 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.

TEST	SPECIFICATIONS	RESULT
Material	Material shall be homogenous and show no separation or coagulation that cannot be overcome by moderate stirring.	PASSES
Chem. & Physical Analysis		
- Non Volatiles %	40%	PASSES
- Ash Non Volatiles %	30 - 40	PASSES
- Solubility of Non Volatiles in CS ₂ %	20 Min.	PASSES
- Specific Gravity 25°C	1.18 Minimum	PASSES
Drying Time	8 Hr. Max. (Typically less than 60 min.)	PASSES
Adhesion & Resistance to Water	No Penetration or Loss of Adhesion	PASSES
Resistance to Heat	No Blistering or Sagging	PASSES
Flexibility	No Cracking or Flaking	PASSES
Resistance to Impact	No Chipping, Flaking or Cracking	PASSES
Resistance to Volatilization	10% Loss in Weight Max.	PASSES
Wet Film Continuity	Smooth, Nongranular Free from Coarse Particles	PASSES

SealMaster Polymer Modified Coal Tar Sealer (PMCTS)

Mixing Procedures:

For optimum results PMCTS shall be mixed in accordance with the following mix design (based on 100 gallons for ease of calculation):
PMCTS Concentrate.....100 gallons
Sand*.....200-400 lbs.

*(40-70 mesh AFS)

NOTE: If required, a small amount of water may be added to facilitate application of mixed material.

Application: For optimum performance and durability apply two coats of PMCTS with sand. A third coat of PMCTS with sand may be applied to high traffic areas such as entrances, exits, and drive lanes.

Application Rate of Mixed PMCTS:

Apply properly mixed PMCTS (PMCTS Concentrate, Sand, and Water - if needed) at a rate of .11 to .13 gallon per square yard (70-82 square feet per gallon) per coat.

Estimating Material Requirements: To estimate gallons of PMCTS Concentrate required to cover a specific area use the following coverage rate:

One gallon of PMCTS Concentrate will cover approximately 85-95 square feet (9.4 to 10.5 square yards) per coat when properly mixed as a sand-filled coat and applied.

Note: Coverage rates may vary due to pavement age and porosity.

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 PMCTS. Keep Out Of Reach Of Children. Do not store unopened drums or pails in freezing temperatures.

6. AVAILABILITY & COST

Availability: PMCTS is supported by a nationwide network of SealMaster manufacturing facilities along with a national network of professional

applicators.

Cost: Cost information can be obtained from a local PMCTS applicator. Contact SealMaster for the PMCTS representative in your area.

7. WARRANTY

SealMaster warrants that PMCTS meets the chemical composition and performance requirements set forth in section 4. Liability to the buyer or user of this product is limited to the replacement value of the product only.

8. MAINTENANCE

Periodic cleaning of parking lot surface will ensure optimum product service life.

9. TECHNICAL SERVICES

Manufacturer: Complete product specifications, material safety data sheets, and technical assistance is available from SealMaster.

PMCTS Professional Applicators: Your local PMCTS applicator is available to provide on-site inspections and recommendations to meet your specific needs.

10. FILING SYSTEMS

- Sweet's Catalog
- Sweet's CD
- Sweet's Online
- Sweet's Directory
- SealMaster Online Specification at www.sealmaster.net
- Complete SealMaster Product and Equipment Catalog Available

The statements made on this specification sheet are believed to be true and accurate and are intended to provide a guide for approved application practices. As workman-ship, 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. Warranty is void on multi-coat applications if material made by other manufacturers is used with this product.

Form No.: SMT-105

Revised: September 2014

Supercedes: SMT-105 (5/05), (7/12), (6/13)

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SealMaster
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www.sealmaster.net

SealMaster®

Pavement Products & Equipment

1. PRODUCT NAME

Top Tuff Pavement
Sealer Additive

2. MANUFACTURER

ThorWorks Industries, Inc.
2520 S. Campbell St.
Sandusky, OH 44870
Phone: 800-395-7325
Fax: 419-626-5477
www.thorworks.com

Additional Plant Locations:
SealMaster has a nationwide network of manufacturing and distribution facilities.

Phone 1-800-395-7325 or visit website at www.sealmaster.net to find the location near you.

3. 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.

Basic 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.

4. 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 150 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)

5. 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 Procedures:

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 TopTuff 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.

TEST	SPECIFICATIONS	RESULT
Material	Material shall be homogenous and show no separation or coagulation that cannot be overcome by moderate stirring.	PASSES
Chem. & Physical Analysis		
- Non Volatiles %	50 - 60%	PASSES
- Ash Non Volatiles %	.10 - .12%	PASSES
- Specific Gravity 25°C	Approx. 1.08	PASSES
Flexibility	No Cracking or Flaking	PASSES
Resistance to Impact	No Chipping, Flaking or Cracking	PASSES
Wet Film Continuity	Smooth, Nongranular Free From Coarse Particles	PASSES

Top Tuff™ Pavement Sealer Additive

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.

6. AVAILABILITY & COST

Availability: Top Tuff is supported by a nationwide network of SealMaster manufacturing facilities along with a national network of qualified applicators.

Cost: Cost information can be obtained from a local SealMaster applicator. Contact SealMaster for the applicator in your area.

7. WARRANTY

ThorWorks warrants that Top Tuff meets the chemical composition and performance requirements set forth in section 4. Liability to the buyer or user of this product is limited to the replacement value of the product only.

8. MAINTENANCE

Periodic pavement sweeping will ensure optimum product service life.

9. TECHNICAL SERVICES

Manufacturer: Complete product specifications, material safety data sheets, and technical assistance is available from ThorWorks or your local SealMaster Representative.

Professional Applicators: Your local SealMaster applicator is available to provide on-site inspections and recommendations to meet your specific needs.

10. FILING SYSTEMS

- Sweet's Catalog
- Sweet's CD
- Sweet's Online
- Sweet's Directory
- SealMaster Online Specification at www.sealmaster.net
- Complete SealMaster Product and Equipment Catalog Available

The statements made on this specification 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. Warranty is void on multi-coat applications if material made by other manufacturers is used with this product.

Form No.: SMT-180

Revised: 7/04

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www.sealmaster.net

SealMaster®

Pavement Products & Equipment

1. PRODUCT NAME

CrackMaster Supreme
Hot Pour Crack Sealant

2. MANUFACTURER

ThorWorks Industries, Inc.
2520 S. Campbell St.
Sandusky, OH 44870
Phone: 800-326-1994
Fax: 419-626-5477
www.thorworks.com

Additional Plant Locations:

SealMaster has a nationwide network of manufacturing and distribution facilities.

Phone 1-800-395-7325 or visit website at www.sealmaster.net to find the location near you.

3. PRODUCT DESCRIPTION & BENEFITS

CrackMaster Supreme is a single component, hot-applied, rubberized asphalt crack and joint sealant. CrackMaster Supreme is specially formulated for both direct fire and oil-jacketed melters. It is heat stabilized to withstand temperatures up to 450°F without experiencing polymer degradation. When melted and properly applied it forms a resilient crack sealant for both asphaltic and cementitious pavements. CrackMaster Supreme meets manufacturer's specifications.

Basic Uses: CrackMaster Supreme is designed to seal expansion joints, longitudinal and transverse cracks, joints between concrete and asphalt shoulders, and random cracks in both asphalt and concrete pavements. CrackMaster Supreme is relatively hard and has a high softening point, which makes it well suited for parking lots and driveways.

Composition: As supplied, CrackMaster Supreme is supplied in solid blocks comprised of heat stabilized polymers and asphalt.

Sizes: CrackMaster Supreme is supplied in 50 lb. cardboard cartons containing two 25 lb. blocks of material per carton.

Color: Black.

Limitations: Do not overheat material. Cracks must be free from moisture, dust, loose aggregate and other contaminants prior to application.

4. TECHNICAL DATA

CrackMaster Supreme meets the following material requirements when tested in accordance with ASTM D6690. (see chart below).

Environmental Considerations:

CrackMaster Supreme is considered a non-hazardous material.

5. INSTALLATION

Proper surface preparation will facilitate adequate adhesion and consequently the maximum service life of the sealant. The crack must be free from moisture, dust, and loose aggregate. Routing or wire brushing are preferred methods followed by a compressed air heat lance immediately prior to sealing. The substrate and air temperature must be above 40°F.

Methods: CrackMaster Supreme may be melted in direct fired or oil jacketed melters. Carefully insert blocks of material (with plastic bag) into melting equipment with agitator turned off. Load material slowly to avoid splashing. After the initial load of material has reached the recommended pouring temperature (350-400°F), fresh material may be added as sealant

is used. Melt only enough material that will be used the same day. Avoid overheating material. Excessive heat could cause material to gel in the equipment or fail in crack and joints. A significant viscosity increase accompanied by stringiness signals the approach of gelation. If this occurs, immediately remove the material from the melter and dispose of it.

IMPORTANT: Protective apparel is recommended with application of CrackMaster Supreme. The extremely hot material will cause severe burns on contact with skin. OSHA Safety Regulations require workers to wear the following types of safety attire (see current OSHA/Safety Regulations for additional information): Hard hat with face shield; long sleeved shirt buttoned at the wrist; heat resistant gloves; long, cuffless pants; and safety toed work boots. Make certain all area around melter is clear of all debris and flammable materials. Avoid breathing vapors. Use with adequate ventilation.

Mixing Procedures:

Use material as supplied. Do not blend with other materials.

Application: Apply heated CrackMaster Supreme using either a pump and wand system or a pour pot. For best results the sealant depth to width ratio should not exceed 2 to 1 (i.e. 2-inches deep to 1-inch wide). The cooled sealant

Chemical & Physical Analysis

Recommended Application Temperature	350 - 400°F
Maximum Heating Temperature	450°F
Cone Penetration at 25°C	50 Max.
Flow at 60°C, mm.....	0
Softening Point	200°F Min.
Flexibility, 0°F.....	(1" Mandrel) - PASS
Specific Gravity	1.17
Asphalt Compatibility	PASSES

CrackMaster™ Supreme

Hot Pour Crack Sealant

height should not exceed 1/8" above surrounding pavement. Using a sealing shoe or squeegee, band the material 2 to 3 inches wide over the crack.

Estimating Material Requirements:

Use the following chart as a guideline for estimating material requirements (based upon pounds of material needed for 100 feet of cracks):

Crack Width	Depth	lbs/100feet
3/8"	3/8"	6.2 lbs.
3/8"	1/2"	8.3 lbs.
1/2"	1/2"	11.1 lbs.
1/2"	1"	22.2 lbs.
3/4"	1/2"	16.6 lbs.
3/4"	3/4"	25.00 lbs.

The above coverage rates are only a guideline. Actual material usage may vary due to width of application and thickness of material above pavement surfaces.

Precautions: Cracks must be free from moisture, dust, dirt, and debris. Both substrate and air temperature must be above 40°F. Keep boxes of material dry during storage. Do not store in direct sunlight.

6. AVAILABILITY & COST

Availability: CrackMaster Hot Pour Crack Sealants are supported by a nationwide network of SealMaster facilities along with a national and international network of professional applicators.

Cost: Cost information can be obtained from a local SealMaster CrackMaster applicator. Contact SealMaster for the CrackMaster representative in your area.

7. WARRANTY

SealMaster warrants that CrackMaster Supreme meets the chemical composition and performance requirements set forth in section 4. Liability to the buyer or user of this product is limited to the replacement value of the product only.

9. TECHNICAL SERVICES

Manufacturer: Complete product specifications, material safety data sheets, and technical assistance is available from SealMaster.

Professional Applicators: Your local CrackMaster applicator is available to provide on-site inspections and recommendations to meet your specific needs.

10. FILING SYSTEMS

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Form No.: SMT-190

Revised: 3/12

Supersedes: SMT-190 (7/04), (8/05)

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