

PITCH BLACK®

ASPHALT EMULSION SEALCOAT

proudly manufactured by



TECHNICAL BULLETIN

1. DESCRIPTION

Pitch Black® asphalt pavement sealer is a premium, proprietary polymer reinforced, high-grade, custom rubberized pre-mixed asphalt emulsion sealcoat blended with carefully selected minerals, fillers, and fibers, formulated specifically to produce a superior asphalt maintenance product. Each component was selected for its unique characteristics, which when combined creates a highly adhesive, extremely flexible seal coat with the deepest and longest lasting black color, firmest body, and greatest durability. In addition, it is free from asbestos fibers or any other carcinogenic materials and is non-flammable. The co-efficient of expansion and contraction of this asphalt emulsion sealer is identical to that of asphaltic concrete pavements and has a natural affinity for bonding to them. Pitch Black® asphalt emulsion pavement sealer is recommended for repairs and maintenance, and the protection of existing asphalt concrete pavements such as: low-volume city streets, parking lots, highway shoulders, airport taxi-ways, tarmacs, aprons, bike paths, walkways, tennis courts, schools and playgrounds, and any other asphalt pavement surfaces.

Pitch Black® asphalt pavement sealer weatherproofs porous asphalt surfaces, prohibits penetration of water and oil, and blocks harmful ultraviolet rays by leaving a tough protective coating on asphalt pavement surfaces. In addition, Pitch Black® asphalt pavement sealer fills small voids, and seals in spalling particles, helping to provide a smoother surface and allow better run-off of water.

The producers of the Pitch Black® formula have gone beyond the usual steps in specifying what types and percentages of crude oils must be used in the asphalt emulsification process. The asphalt emulsion used in Pitch Black® is made by adding specific, custom emulsifiers in a process that produces a product that readily accepts minerals, fillers, and additives in seal coat manufacturing that is so necessary to the final quality of the seal coat product. This results in a superior asphalt seal coat with special properties giving it a hard, smooth and longer lasting surface.

With over 30 years of experience in manufacturing asphalt emulsion based sealcoat products, and over 70 years in the asphalt industry, Pitch Black® is the leader in asphalt maintenance products.

2. MATERIAL SPECIFICATIONS AND PHYSICAL PROPERTIES

***In studying product specifications, it should be noted that more is not always better.**

Pitch Black® asphalt sealer has been specifically formulated to provide the proper blend of materials to create durability, a wearing surface, and an aesthetically pleasing appearance. Increasing one or more of the components will not necessarily improve product performance.

The specifications below are a guideline to determine the quality of Pitch Black® asphalt sealer and to provide a mechanism by which the material can be manufactured with consistent results. The specifications can be interpreted as follows:

- A. Cone Penetration** - This is the **ASTM D-217** test method that determines how viscous or thick the product is. The higher the value of cone penetration, the thinner the consistency, whereas the lower the value, the thicker the material. A cone penetration of 400 provides a high level of consistency.
- B. Nonvolatile Components (solids content)** - This is the **A.S.M.A. A-1** test method that determines the amount of

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material in the sealer that is of solid nature. In general, it is an indication of how sand, asphalt, and other fillers are present in the sealer mix. A larger number indicates a higher solids content and less water or other wetting agents.

- C. **Nonvolatile Soluble in Trichloroethylene** - This is the **ASTM D-2042** test method that uses Trichloroethylene solvent to dissolve asphalt from the sealer solids. This test determines how much of the solids are asphalt. Since asphalt is the glue that holds the mix together, it is a very important part of the mix.

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- D. Dried Film Color** - After the curing process, Pitch Black® asphalt sealer provides a deep black color.
- E. Density** - The density of the product is an indication of the weight of the product per gallon.
- F. Water Content** - This is the **ASTM D-244** test method that measures the amount of water present in the emulsified asphalt, as distinguished from either bitumen or petroleum solvent.
- G. Wet Track Abrasion** - This is the **ASTM D-3910** test method that covers the design, testing, and construction mixtures for surface treatment of asphalt pavements.
- H. Mineral Aggregate Components** - This is the **ASTM C-136** test method that covers the determination of the particle size distribution of fine and coarse aggregates by sieving.
- I. Viscosity** - This is the **ASTM D-562** test method that covers the measurement of Krebs Units (KU) viscosity to evaluate the consistency of coatings using the Storm-type viscometer.
- J. Accelerated Weathering** - This is the **Fed. Spec. TT-C-555B** test method that covers coatings having a masonry-like textured finish.
- K. Resistance to Wind Driven Rain** - This is the **Fed. Spec. TT-C-551B** test method for the evaluation of the ability of coatings to resist the passage of water through masonry block when exposed to water spray and air pressure.
- L. Total PAH Content, ppm** – This is the **EPA 8310** test method used to determine the concentration of certain PAH's or (polynuclear aromatic hydrocarbons) in ground water and/or wastes.

***Pitch Black® asphalt emulsion sealcoat meets and/or exceeds the following specifications**

TEST DESCRIPTION	MINIMUM	MAXIMUM	METHOD
Cone Penetration	340mm.	700	A.S.T.M. D-217 at 77F
% Nonvolatile Components	50		*ASMA A-1
% Nonvolatile Soluble in Trichloroethylene	10	35	A.S.T.M D-2042
Dried Film Color	Black		
Density (lbs. per gal.)	9.71		
% Water Content	15	20	A.S.T.M. D-244
Wet Track Abrasion		35-gram loss	A.S.T.M D-3910
Mineral Aggregate Components	#16 Sieve 100% Passing		A.S.T.M. C-136
Viscosity	75 KREB		A.S.T.M. D562
Accelerated Weathering	No Deterioration		Fed. Spec. TT-C-555B
Resistance to Wind Driven Rain (98 mph)			Fed. Spec. TT-C-551B
Flammability (Wet)			Non-Flammable
Flammability (Dry)			Burns Slowly
Total PAH Content, ppm	0.00	0.00	EPA 8310

3. GUIDE TO SURFACE PREPARATION

Surface shall be clean of all dirt, sand, oil or grease. Clean by air blowing, vacuum, mechanical sweeper, washing, or other techniques as approved by the engineer. If washing the existing surface is used, the surface shall not have any standing water prior to application of the sealcoat. Salt, deicing agents, fertilizers, hard water deposits and other such chemicals will promote lack of bonding of the sealcoat to existing surface and may require extraordinary measures.

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Priming of the asphalt surface may be necessary on areas that have weathered excessively or are heavily soiled. The primer should be diluted with 4-parts cool clean water and 1-part SS1H. Apply at the rate of 1 gallon per 100 square feet and allow drying. If in doubt, a test area should be tried. Care should be taken not to leave a ridge of mix where adjoining applications overlay. Cracks that are in excess of 1/8" should be cleaned and filled with a commercial hot, rubberized crack sealant prior to sealcoat application. The crack sealant shall be applied according to manufacturer's recommendations and should be dry to the touch prior to application of the sealcoat material. On hot days apply sealer to pre-dampened (not wet) surface. Striping for parking or traffic flow should be done only after the sealcoat has thoroughly dried.

4. APPLICATION

Application of Pitch Black® asphalt emulsion shall be by mechanical means using spray equipment, distributor bar, wand, rubber faced squeegees, brooms or combinations of these techniques that are approved by the Manufacturer and Engineer. The sealcoat being applied shall be uniform and free flowing, free of inconsistencies. Potable water may be added at a rate of 15% - 20% by volume maximum dilution, dependent upon ambient and surface temperatures. Asphalt emulsion sealcoat may not be applied when the ambient temperature is less than 55°F and rising or the surface temperature is less than 60°F.

FOR MODERATE TO ROUGH SURFACES

When the asphalt sealcoat is to be placed on a severely weathered pavement with either a moderate or rough surface, the addition of silica sand and Pitch Black Polytex® additive, may be added at the following formulation for the first coat:

Moderate Surfaces Per: **100 gallons Pitch Black® Concentrate Sealer**
 300 lbs. #40 - #60 mesh, washed, bagged Silica Sand

1.5 - 3 gallons Polytex® Polymer Additive (1.5% - 3%)
20 - 25 gallons of potable water (20% - 25%)

Rough Surfaces Per: **100 gallons Pitch Black® Concentrate Sealer**
 400 lbs. #40 - #60 mesh, washed, bagged Silica Sand
 2 - 3.5 gallons Polytex® Polymer Additive (2% - 3%)
20 - 25 gallons of potable water (20% - 25%)

For best results always apply 2 coats, 1st coat as above, 2nd without addition of sand. In heavy traffic areas, a 3rd coat is suggested.

5. PRECAUTIONS

Protect from freezing in the container. Protect the applied coating from rain or freezing until completely cured. Do not apply if precipitous conditions exist or if temperatures are below 55 F. Do not take internally. If swallowed, call physician immediately. Keep container sealed when not in use. Keep out of reach of children.

6. DRYING TIME

At 70F and 50% relative humidity, approximately 2 to 3 hours. Drying time is dependent on temperature, humidity, air movement and thickness of application. It is recommended that no traffic be allowed over curing film for at least 24 hours. Striping for parking or traffic flow should be done only after seal coat has thoroughly dried. It is recommended that high quality water based traffic line paint be used for best results.

7. CLEAN UP

Use clean water before emulsion has dried. Dried emulsion may be removed with petroleum Solvent.

8. SHELF LIFE

Up to one-year maximum in unopened container.

9. AVAILABILITY

Bulk and 55-gallon drums.

REMEMBER, THERE IS NO ECONOMICAL SUBSTITUTE FOR QUALITY!

“When it comes to sealcoating, we’ve got it covered!”

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