

Key Seal Products, Inc.

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Key-Seal Slurry Sealcoat Specifications

The Asphalt Sealcoat Materials, as manufactured, undiluted, except as noted, shall conform to the following requirements;

	MIN	MAX	METHOD
Weight (per gallon)	9.5 lbs.	10.5 lbs.	A.S.T.M. D244
Cone Penetration	340mm.	700	A.S.T.M. D217
% Non-Volatile	60		ASMA A-1
% Non-Volatile Soluble in Tri-Cloethylene	10	35	A.A.T.M. D2042
Wet Track Abrasion		35 gram loss	A.S.T.M. D3910
Mineral Aggregate Components	#20 Sieve 100% Passing		#20/850 pm sieve 100% passing
Dried Film Color	Black		
Viscosity	75 KREB		A.S.T.M. D562
Accelerated Weathering	No Deterioration		Fed Spec TT-C-555B
Asphalt Content	25% -35%		Non Volatiles by weight

This product is emulsion based made with Paramount Petroleum SS1H. This sealer meets or exceeds any sealer as specified by Asphalt Sealcoat Manufacturers Association.

We are a GREEN product as recognized by the specifications given in “The Green Book” for public work construction in the state of California.

We use recyclable and biodegradable material in manufacturing and always strive to reduce a negative impact on the environment.

1-3 ASPHALT SEALCOATS

1-3.01 DESCRIPTIONS – The work covered by this specification includes the design, testing and quality control required for the proper production of an Asphalt Sealcoat product and all materials, equipment and workmanship required for the application of an Asphalt Sealcoat to an existing asphalt concrete pavement where shown on the plans, as specified in these specifications and the special provisions, and as directed by the Engineer.

Asphalt sealcoats are recommended for minor repair and maintenance and for the protection of existing asphalt concrete pavements such as low volume city streets, parking lots, highway shoulders, airport taxiways, tarmacs, and aprons, bike paths, driveways or any asphalt concrete pavement.

Asphalt sealcoats under this specification shall be manufactured by uniformly blending asphalt emulsions, aggregates, water and various add mixtures in central plan capable of producing a minimum of 750 gals per hour of finished product. Components shall be measured by electronic or mechanical controls that consistently add all additives as required by these specifications. Blending the admixtures with the base asphalt emulsion shall be by mechanical means to provide a uniform mixture.

Asphalt sealcoat shall be stored in a tank equipped with power driven mixing or agitation equipment capable of keeping the Asphalt sealcoat thoroughly and uniformly mixed. The stored material shall be protected from freezing in cold weather conditions.

1-3.02 MATERIALS – The materials for Asphalt Sealcoat immediately prior to mixing shall conform to the following requirements:

Asphaltic Emulsion shall be SS1h or CSS1h, conforming to the requirements in section 94 of the California Standard Specification, “Asphaltic Emulsions.” Table 1 or 2, with the exception of the penetration of residue from distillation which will conform to a value of 20 to 60. Clay stabilized emulsion, with a ph not greater than 7.0, and a solids content not less than 45 % may be used.

The properties of the SS1h shall be determined in accordance with AASHTO designation T59 “testing emulsified asphalt.”

Water shall be potable and of such quality that the water will not separate from the emulsion before the sealcoat is applied.

Mineral Aggregate components shall be 100% passing the #16 mesh sieve. These components shall be a natural or manufactured consisting of clean, hard, durable, uncoated particles that are clean and free from decomposed materials, organic materials and other deleterious substances. The sieve analysis of the Mineral Aggregates components shall be determined in accordance with A.S.T.M test method C136 or Cal Test 202.

1-3.03 SURFACE PREPARATION – The surface to receive Asphalt Sealcoat must be free of all foreign material and dry immediately prior to sealcoat application. Cleaning may be 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 the existing surface any may require extraordinary cleaning measures.

Cracks in excess of 1/4 inch, but less than one inch in width must be sealed prior to application of the sealcoat. Cracks must be cleaned of all weeds and debris prior to cracksealing with crackfiller. The crackfiller shall be applied per manufacturer’s recommendations and must be dry to the touch prior to

application of the sealcoat. Cracks that contain weed and other live vegetable matter must be treated with locally approved non-oil based sterilant prior to application of crackfiller.

Cracks wider than one inch shall be filled with a fine aggregate hot, dense graded asphalt concrete conforming to Section 39 of the California Standard Specification for 3/8" Maximum Asphalt Concrete.

Crackfiller shall be a hot or cold applied product designed for use in asphaltic concrete made from petroleum asphalt, modified polymers, and suitable inert fillers.

The properties of the crackfiller shall be such as to be compatible with the Asphalt Sealcoat.

Prior to application of sealcoat, deposits of grease or oil shall be cleaned by scraping, burning, and/or the use of approved detergents in order to promote adhesion of the sealcoat. After cleaning the areas described above, the areas shall be sealed with an oilseal. Oilseal shall be a quick drying latex emulsion with suitable admixtures manufactured specifically for the purpose of isolating the Asphalt Sealcoat from any residual oils, petroleum grease, and gasoline stained pavement.

The properties of the Oilseal shall be compatible with the Asphalt Sealcoat.

In areas where the foreign oil or grease has penetrated the asphalt concrete such that cleaning as described above is not effective, the affected areas shall be removed to the depth necessary but not less than 3/4 inch. The removed asphalt concrete shall be replaced with new asphalt concrete conforming to Section 39 of the California Standard Specification.

On excessively weathered surfaces or areas such that cleaning operation leave a film of dust, a tack coat of SS1h conforming to Section 94 of the California Standard Specifications shall be applied. The tack coat shall consist of One (1) part SS1h with Four (4) parts water or Two (2) parts Asphalt Sealcoat with One (1) part water applied at a rate of 0.05 to 0.10 gal/sq. yd. The tack coat must be dry prior to application of the Asphalt Sealcoat.

Areas of structurally unsound asphalt concrete such as alligator cracking, low spots (bird baths) or rutting must be properly repaired prior to placement of the Asphalt Sealcoat.

Asphalt Sealcoat shall not be placed on new asphalt concrete until after a 30 day minimum cure period or as directed by the Engineer.

1-3.04 APPLICATION – Application of the Asphalt Sealcoat shall be by mechanical means using rubber faced squeegees, brooms, distributor bar/wand, or combinations of these or other techniques approved by the Manufacturer and by the Engineer.

The Asphalt Sealcoat being applied shall be uniform and freeflowing, free of lumps and other inconsistencies. Potable water may be added as necessary as per manufacturer's recommendation, for consistency and spreadability but shall not exceed 15% by volume or as directed by Engineer. If, after the addition of the maximum allowable water volume the sealcoat is unsuitable, the materials shall be rejected and removed from the site.

Asphalt Sealcoats generally consist of two application coats of material. Additional applications may be required as directed by the Engineer. The sealcoat must be thoroughly dry prior to application of the second or subsequent coats.

Application of Asphalt Sealcoat in ambient temperatures in excess of 80 degrees Fahrenheit shall require pretreatment of the asphalt concrete surface with a water mist. The water must not be standing, but the surface should be damp prior to sealcoat application. This treatment is also recommended for application

Key-Seal Asphalt Sealcoat Specifications 4

of porous surfaces where the water within the sealcoat may be absorbed too quickly by the existing pavement surface.

Asphalt Sealcoat shall be applied uniformly over the prescribed area in continuous parallel lines in a manner so that no ridges or uncoated areas shall exist. Application rates will vary depending on the texture of the existing asphalt surfaces requiring more sealcoat than smooth surfaces.

Asphalt Sealcoat shall not be applied unless the ambient temperature is 55 degrees and rising. Sealcoat shall not be applied within 24 hours prior to forecasted rain, freezing temperatures, during rain, or when the surface contains standing water.

1-3.05 – Traffic shall not be allowed on the Asphalt Sealcoat until the sealcoat is thoroughly cured. Drying time varies due to shade and temperature and can require as little as two hours or as much as 24 hours. Minor scuffing or power steering marks may occur on a newly applied surface in warm weather.

Irrigation watering shall be kept off for at least 24 hours prior to and after the application of Asphalt Sealcoat.