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## SEALCOAT STANDARD SPECIFICATIONS

### Section 1: Product Description

The intention of this specification is to set a standard of design, testing and quality control for the sealcoat manufactured by Road Work Ahead Construction Supply, Inc. Water-based Asphalt Emulsion sealcoats are recommended for minor repair, maintenance and for the protection of existing asphalt concrete pavements. Examples of where to use the product are: parking lots, airport taxiways, tarmacs and aprons, bike paths, driveways, highway shoulders and low-volume city streets and cul-de-sacs.

The sealcoat material shall be manufactured uniformly from one batch to another and create a consistent blend of cellulose fiber, bentonite clay, crushed black slate, water-based asphalt emulsion, coloring agents, and potable water. The input components shall be measured on every batch using electronic or mechanical methods to insure product quality and consistency.

Finished product **MUST** be stored in a tank equipped with a power-driven mechanical agitation capable of keeping the finished product thoroughly and evenly mixed. The material **MUST** be stored in a manner to protect it from freezing in cold weather conditions. Any material that has frozen shall be disposed of in a location that conforms with all local, federal and state laws.

### Section 2: Materials

The asphaltic emulsion shall be CSS-1H conforming to all Idaho state specifications with the exception of the reduction of the penetration of the residue to be from 60 to 75 rather from 40 to 90 and shall be tested with every production batch of the emulsion.

Property	Test Procedure	Min	Max	Typical
Viscosity, 77°F	AASHTO T72	20	100	26
Sieve test, %	AASHTO T59	–	0.1	0.00
Storage stability %	AASHTO T59	–	100	100
Particle charge	AASHTO T59	Positive (Cationic)		
Distillation test:	AASHTO T59			
Residue by distillation, % by wt.	AASHTO T59	57	–	63
Tests on residue from distillation:				
Penetration, 77°F, 100 g, 5 sec.	AASHTO T49	40	90	68

The cellulose fiber shall be evenly and thoroughly mixed into the product to create reinforcing properties and help in the maintenance of a uniform and stable mixture. The cellulose shall be stored in a clean, dry location and be free of any contaminants or bacterial growth.

The cellulose fibers shall be of a sieve size of:	
20 Mesh, % Retained	8-15%
40 Mesh, % Retained	12-18%
60 Mesh, % Retained	11-18%
80 Mesh, % Retained	12%
100 Mesh, % Retained	6%
140 Mesh, % Retained	10%

The bentonite clay shall be evenly and thoroughly mixed into the product to create a uniform viscosity, help in the maintenance of a uniform and stable mixture and help in the bonding properties with asphalt. The clay shall be stored in a clean, dry location and be free of any contaminants or bacterial growth.

<b>The clay shall be of a sieve size of:</b>	
200# Mesh Passing	70%

The crushed black slate (slate sand) shall be evenly and thoroughly mixed into the product to create a wear surface for the finished product. The slate shall be stored in a clean, dry location and shall not be in contact with rainwater during the period of bulk storage so as to not affect the weight of the input product. The slate must be clean and free of decomposed materials, organic materials and other deleterious substances. Crushed black slate is added at a rate of 2.0 lbs per gallon with respect to weight.

<b>Slate Typical Sieve Analysis:</b>	
20 Mesh, % Passing	99%
50 Mesh, % Passing	74%
100 Mesh, % Passing	55%
200 Mesh, % Passing	38%

The coloring agent used must be a water based carbon black product with a neutral ionic charge. The product must contain a minimum of 1% of the coloring agent with respect to volume in a liquid state.

The water used must be potable water and of such quality that the water will not separate from the emulsion before the sealcoat is applied. The water must be filtered before use and the holding tanks must be inspected regularly to insure no algae or bacterial growth is present. "Ditch water" or "canal water" shall not be acceptable for use in sealcoat or the finished product.

Description of the finished product:

Physical Description:	Black Liquid
Boiling Point:	212 Degrees F
Solubility in Water:	Soluble
Specific Gravity:	1.34
Percent Volatility by Volume:	0
Reactivity in Water:	None
Vapor Density: (Air @ 1)	0.65
Percentage of Solids (by volume):	62.00%
Weight per gallon (lb/gal)	10.5

The plant that produces the sealcoat material must be in a central location with the ability to provide the finished product to the region in a manner to insure the sealcoat is delivered with a uniform product consistency. The plant must be capable of producing a minimum of 1500 gallons per hour and have the storage and logistic capacity to send a truck out for delivery within 24 hours of request.

**Section 3: Application**

The application of the finished product must follow the application specifications provided by Road Work Ahead Construction Supply.