



## **PROSPEC SEALCOAT APPLICATION SPECIFICATIONS**

### **1.0 Scope of Work**

The work covered by this specification consists of furnishing all labor, equipment, materials and performance of operation in connection with application of ProSpec. The major items of work shall consist of, but not be limited to the following operations.

- A. Remove and sterilize any incidental vegetation.
- B. Repair cracks and patch low areas.
- C. Cleaning of the pavement surface.
- D. Application of Sealcoat Sealer.

### **2.0 Materials**

- 2.1** ProSpec as manufactured by RWA Slurry Products – a cold applied composition of a refined petroleum asphalt emulsion, fillers and fibers, or equal. Asphalt emulsion shall not be of the clay type.

<b>MATERIAL SPECIFICATION</b>	<b>LIMITS</b>	<b>TEST METHODS</b>
1. RESIDUE AT 300 – 400 DEGREES F° %	60 – 70	See Note 1
2. DEHYDRATION, 8 HOURS AT 70 DEGREES F. 0.6 Min		
3. SOLUBILITY OF RESIDUE IN C <sub>2</sub> HCl	15-20	ASHTO T 45-46
4. LOSS ON IGNITION OF INSOLUBLE RESIDUE %	16 max	ASTM D6
5. CONE PENETRATION AT 77 DEGREES F° Dmm	400 –700	ASTM D217

**Note1**

Method for determination of residue: A 25 gram sample shall be placed in a tin lid not less than 5" in diameter and heated on a electric hot plate at a temperature between 300 & 400 Degrees F for approximately 15 – 20 minutes until the vapor changes from white to a blush color & bubbling ceases.

- 2.2** Emulsified Asphalt Binder – shall conform to specification for CSS-1H Asphalt Emulsion.
- 2.3** Sand – 30 to 70 Mesh sand blast sand. (if required) (optional)
- 2.4** Water – the water used in all mixtures shall be fresh and potable.

### **3.0 SURFACE PREPARATION**

- 3.1** The surface must be free of all foreign material, such as sand, dust, clay, and grease, which might adversely affect bonding of the ProSpec. High-pressure air blowers, vacuums or sweepers shall be used to remove these objectionable materials. Where there are deposits of grease or oil, a detergent (Trisodium Phosphate, etc.) and stiff brush shall be used to scrub the area clean. When detergents are used, the pavement shall be thoroughly rinsed with water. After cleaning and removing grease and oil spots the areas should be sealed with an oil spot sealant.
- 3.2** All weeds or other vegetation growing through the asphaltic concrete shall be removed and sprayed with a suitable chemical.
- 3.3** Thoroughly clean all cracks of all foreign matter. All cracks 1/8" and larger shall be filled with approved crack filler. Larger cracks may require several applications. Allow crack filler to cure prior to seal coating. All cracks under 1/8" should be filled with multiple coats of ProSpec.

### **4.0 APPLICATION PROCEDURES**

- 4.1** ProSpec shall be mixed to a uniform free-flowing consistency. Water shall be added (not to exceed 20% by volume) to obtain semi-fluid consistency. Prior to the 1<sup>st</sup> application of ProSpec in exceptionally hot weather, dampen the surface with water. Remove any excess water leaving a slightly damp surface.
- 4.2** ProSpec should be applied to the area in continuous parallel lines and spread immediately by use of rubber faced squeegee and/or mechanized material spreading equipment (mechanized material spreading includes either the use of motorized squeegee applicators or the use of spray equipment).

- 4.3** It is optional to increase the coarseness of the asphalt surface to add 30 - 60 mesh sand blast sand (silica sand) at a maximum of one pound per gallon of ProSpec. Additional water should be added to maintain a semi-fluid consistency.

## **5.0 APPLICATION – NEW PAVEMENT OR OLD PAVEMENT WITH MINOR VOIDS.**

To be used on generally smooth areas where surface voids in the pavement are less than 3/16" between the top of the exposed aggregate to the bottom of the void.

- 5.1** Two (2) or more applications shall be made using 0.2 gallons undiluted ProSpec per square yard of area. However, the controlling factor should be not the number of applications, but that the surface should be smooth and uniform, showing no evidence of course or uneven texture.

## **6.0 APPLICATION – EXCESSIVELY ROUGH PAVEMENT.**

To be used on excessively rough areas, where surface voids in the pavement are equal to or greater than 3/16" between the top of the exposed aggregate to the bottom of the void.

- 6.1** First application – to each gallon of ProSpec should be added 1 pound of 30 – 60 mesh sand as a maximum, water should be added to obtain a semi-fluid consistency.
- 6.2** Subsequent Application – One or more applications of ProSpec shall be made without the addition of the sand filler.
- 6.3** Two (2) or more applications shall be made using 0.25 of undiluted ProSpec per square yard of area. However, the controlling factor should be not the number of applications, not the quantity of ProSpec used (except that .25 gallons per square yard should be a minimum) but that the surface should be smooth and uniform, showing no evidence of course or uneven texture.

## **7.0 GENERAL PRECAUTIONS.**

- 7.1** Weather limitation – No part of the construction involving the application of ProSpec shall take place during or just prior to rainfall. Air temperature shall be at least 50 degrees F and rising.
- 7.2** Salt and De-icing agents – residues from rock salt or other deicing agents can cause dis-bonding of the sealer. In areas where these materials are used, the pavement shall be cleaned with a detergent, and then thoroughly rinsed with water.
- 7.3** Curing time – As soon as any application is dry to the touch and won't scuff under normal walking, another application can be made. Complete curing will take approximately 24 hours in warm clear weather.
- 7.4** Paint – A water-based paint should be used.

## **8.0 INCREASING AMOUNT OF SOLIDS AND DILUTING.**

- 8.1** Adding sand to mix – If adding sand to mix the amount of sand should not exceed one pound of sand per gallon. If this is exceeded more tack oil should be added also. The tack oil used should be a cationic solution and preferably be CSS-1.
- 8.2** When using additional sand, a slate-based sand should be used in order to increase the life of the sealed surface and using a black slate will help retain the dark appearance of the seal. If slate sand is not available, silica sand or copper slag of a 30 mesh size may be used up to a 1 pound per gallon rate.
- 8.3** The ProSpec solution should not be diluted beyond 20% water with respect to volume. If this is exceeded the adhesion factor of the tack oil will be reduced and the Sealcoat may not form a permanent bond to the asphalt.

## **9.0 THICKNESS OF THE SEAL.**

- 9.1** Thickness of the sealer surface is to be determined by the applicator. It should be noted however that each application should not exceed 1/16" or scaling or splitting of the sealer may occur. In order to ease the application of a thicker seal, the Sealcoat material should be diluted the least amount possible.
- 9.2** If an initial seal of new asphalt (older than 3 months, less than 2 years) is desired the seal coat should be diluted to 20% and can be applied by sprayer using two even coats.