

## **ITEM 10608.9402 M - COLORSET ASPHALT PAVEMENT COLOR SYSTEM**

### **DESCRIPTION.**

Under this work, the contractor shall furnish and apply pigmented asphalt coating material at the locations shown on the plans. Upon hardening, the pigmented asphalt coating material will be of the thickness, width and color shown in the plans. Pigmented Asphalt Coating shall be 'Colorset', as supplied and installed by Statewide Traffic Safety, L.L.C., 449 Pomeroy Road, Parsippany, NJ 00700.

### **MATERIALS.**

The pigmented asphalt coating shall consist of two separate components; component A, a polymerizable methyl methacrylate based resin with integral color pigment and component B, a polymerization catalyst. When combined, these two components will start a chemical reaction, hardening the materials into a plastic suitable for application as a pavement coating during the pot life of the mixture. Pot life is five minutes. In its hardened state the plastic shall present a marking whose color and chemical resistance will not degrade under normal exposure to calcium chloride, sodium chloride or automotive oils and fuels.

- A. Component A – The liquid component of the material shall be based on a low viscosity methyl methacrylate resin combined with inert fillers and plasticisers for use as a road marking material. Component A will contain the color pigment described below.
- B. Component B – The polymerization catalyst shall be a 50% benzoyl peroxide powder.
- C. Zero Grade Quartz Silica Sand - Quartz silica sand shall be zero grade in quality and shall meet the following sieve distribution requirements:
- 00% – 10% shall pass an ASTM-11 sieve No. 30
  - 10% – 30% shall pass an ASTM-11 sieve No. 40
  - 15% – 35% shall pass an ASTM-11 sieve No. 50
  - 15% – 35% shall pass an ASTM-11 sieve No. 70
  - 10% – 25% shall pass an ASTM-11 sieve No. 100
  - 05% – 15% shall pass an ASTM-11 sieve No. 140
  - 00% – 05% shall pass an ASTM-11 sieve No. 200
  - 00% – 05% shall pass an ASTM-11 sieve No. PAN
- D. Color Pigment – Pigments used shall remain stable under exposure to ultra violet light. In its hardened state the color shall be as specified in the contract plans.

### **CONSTRUCTION DETAILS.**

All surfaces to which pigmented asphalt coating material is to be applied shall be clean and free of all curing compounds, dust and dirt. Pigmented asphalt coating shall be

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applied directly to asphalt top course where shown on the plans. Pigmented asphalt coating shall be applied as follows:

1. Border the area to which pigmented asphalt coating is to be applied using masking tape and cardboard template.
2. Thoroughly mix component A using a power drill before adding component B. While mixing component A, add component B and continue mixing for 60 seconds to ensure the dispersion of the catalyst. Once mixed, pot life is five minutes.
3. Pour the resulting pigmented asphalt coating material onto the surface and spread with a squeegee or medium textured paint roller. The material shall be applied to the pavement surface, while in a plastic state, in a uniform thickness of 889 microns +/- 51 microns measured dry. The material shall be applied when the pavement surface temperature is 4.4°C. and above. The maximum surface temperature shall be 38°C. The maximum relative humidity shall be 70%.
4. Quartz silica sand shall be excessively and uniformly distributed across the pigmented asphalt overlay prior to curing (cure time at 24°C. is 15 minutes, 30 minutes at 16°C.).
5. Remove masking materials prior to curing.
6. Excess sand shall be swept up after the material has cured.

The contractor shall prepare a test panel of not less than one square meter at a location to be determined by the engineer for the inspection and approval by the engineer. The contractor shall not proceed with the coating of the areas specified on the plans until directed to do so by the engineer.

### **METHOD OF MEASUREMENT**

The work will be measured as the number of square meters of surface coated in accordance with the plans and specifications, or as directed by the field engineer.

### **BASIS OF PAYMENT**

The unit price bid per square meter shall include the cost of test panels and the furnishing all labor, materials, equipment and tools necessary to complete the work.

Areas where the coating is deemed unacceptable by the engineer shall not be measured for payment. The contractor may be directed by the engineer to re-coat these areas at the contractors expense to the satisfaction of the engineer before payment is made.