

**SPECIFICATION
COLORIZED COATINGS**

1. **USE:** A durable, colorized, slip resistant and skid resistant coating suitable for delineating areas for preferential use, such as bike lanes, bus lanes and other vehicular or pedestrian traffic uses.
 - 1.1. Material must be specifically designed for application onto asphalt or non-bituminous concrete surfaces such as portland cement concrete. Material must have a balance of properties that will ensure adhesion and movement on a flexible pavement, while providing excellent durability and color stability. Key properties include wear and crack resistance, color retention, adhesion, minimal water absorption and increased friction properties.
 - 1.2. A Certificate of Analysis from an independent recognized testing laboratory confirming performance as outlined in section 1.1 shall be made available upon request.
 - 1.3. A variety of colors shall be available including blue, green, red and purple with custom colors available upon request.

2. **MATERIAL:** Must be composed of a two component, epoxy-modified, acrylic, waterborne coating specifically designed for application onto asphalt or non-bituminous concrete surfaces such as portland cement concrete, and is specially formulated to provide a safe, durable, long lasting color and texture to the pavement surface.
 - 2.1. Typical Physical Properties of coating material:

Table 1: Typical Physical Properties of coating		
Characteristic	Test Specification	Coating
solids by volume	ASTM D 2697	55%
solids by weight	ASTM D 2369	68.90%
Density	ASTM D 1475	13.34 lbs/gal (1.599 kg/l)

- 2.2. Material must be environmentally safe and meet EPA requirements for Volatile Organic Compounds (VOC).
3. **APPLICATION:** The material shall be applied to the pavement surface using the method outlined in the product Application Instructions.
 - 3.1. The pavement surface shall be dry and free from all foreign matter.
 - 3.2. Additional layer of material may be used to provide additional thickness in high wear areas such as wheel paths and vehicle turning areas.

SPRAY PASSES	THICKNESS (approx.)			
	Wet		Dry	
	Mm	mil	mm	mil
3	0.65	25.7	0.36	14.1
4	0.87	34.3	0.48	18.9

- 3.3. Each coating application shall be spray applied using the Rapid Sprayer II and broomed to work the material into the surface. Subsequent layers shall be sprayed and rolled, using a 1in. to 1.5 in. nap roller or sprayed and broomed.
- 3.4. Each additional layer of coating material shall be the same color as the first and shall be allowed to dry completely before applying the next layer.

3.5. One container of coating will yield one layer covering approximately 700 square feet. See table below.

Layers	Approximate coverage per unit	Approximate coverage per layer	Recommendation
3	225 ft ² (20.9 m ²)	675 ft ² (62.7 m ²)	coating not subjected to vehicular traffic
4	175 ft ² (16.3 m ²)	700 ft ² (65.1 m ²)	coating subjected to vehicular traffic

3.6. Coating must be 100% dry before opening to traffic. Air temperature, relative humidity and time will affect dry time. Substrate temperature and ambient wind conditions can also affect dry times. Reference the table below for typical dry times.

COATING DRY TIMES (TYPICAL)		
Air Temperature	Relative Humidity	Time to dry (approx.)
60°F (15°C)	80%	8 hours
81°F (27°C)	57%	4 hours
120°F (49°C)	5%	2 hours

4. PERFORMANCE PROPERTIES OF COATING

Characteristic	Test Specification	Coating	
Dry Time (to recoat)	ASTM D 5895 23°C; 37% RH	35 min	
Taber Wear Abrasion Dry H-10 wheel	ASTM D 4060 1 day cure	0.98 g/1000 cycles	
Taber Wear Abrasion Wet H-10 wheel	ASTM D 4060 7 days cure	3.4 g/1000 cycles	
Accelerated Weathering Environment	ASTM G 155 2,000 hrs (CIE Units)	ΔE=0.49 (brick color)	
Hydrophobicity Water Absorption	ASTM D 570	8.3% (9 days immersion)	
Shore Hardness	ASTM D 2240	63 Type D	
Mandrel Bend	ASTM D 522-93A	1/4 in @ 21° C	
Permeance	ASTM D 1653	3.45 g/m ² /hr (52 mils)	
VOC	EPA-24 ASTM D 3960-05	18.7 g/l	
Adhesion to Asphalt	ASTM D 4541	Substrate Failure	
Friction Wet	ASTM E 303 British Pendulum Tester	WP* coated	64
		WP* uncoated	57
		AC** coated	73
		AC** uncoated	60

*WP - test conducted on asphalt pavement in wheel path.

**AC - test conducted on asphalt pavement adjacent to curb.

5. TECHNICAL SERVICES: The successful bidder shall provide technical services as required.