

**Rehabilitation
and
Maintenance Materials**

**REHABILITATION AND
MAINTENANCE MATERIAL**

- Bituminous Spray Application
- Combined Spray and Aggregate Application
- Patching Materials

A BASIC ASPHALT EMULSION MANUAL

**MANUAL SERIES No. 19
ASPHALT INSTITUTE**

PURPOSES OF PRIME COATS

1. To coat and bond loose aggregate particles
2. Waterproof Surface
3. Provide adhesion between unbound base and asphalt concrete layer.

USES OF PRIME COATS

- To extend an unbound base layer through an extended period of time.
- Unbounded bases subjected to heavy construction traffic

QUANTITY USED

Amount: Generally between 0.1 to 0.3 gal/yd²

- Weather Conditions
- Quality of unbounded base (absorption)
- Base Gradation
- Void Spaces

Type of prime Coats: SS-1, SS-1h, CSS-1 or CSS-1h.

**TO IMPROVE THE WEARING SURFACE
OF A GRANULAR BASE DURING
CONSTRUCTION**

- Apply Asphalt Emulsion
- Scarify the Top 2 to 3 Inches of Base
- Mix-in-Place
- Compact

TACK COAT

- A light application of diluted asphalt emulsion
- Used as a bonding material between two asphalt concrete layers.

Do Not Over Apply Tack Coat

EMULSION TYPES USED FOR TACK COATS

SS - 1

SS - 1h

CSS - 1

CSS - 1h

Diluted material Normally Applied at a Rate
of 0.05 to 0.15 gal/yd²

GOAL OF TACK COAT

Thin uniform coating of asphalt that acts
as an adhesive, not a lubricant.

KEEP TRAFFIC OFF THE TACKED AREA

FOG SEAL

A light application of slow-setting asphalt emulsion, diluted with water.

PURPOSE OF FOG SEAL

To renew old asphalt surface and to seal small cracks and surface voids.

**GRADES FOR ASPHALT EMULSIONS
USED FOR FOG SEALS**

- SS - 1
- SS - 1h
- CSS - 1
- CSS - 1h

DO NOT OVER APPLY FOG SEAL

Result will be reduced skid resistance

QUANTITY OF FOG SEAL USED

- Surface Texture
- Surface Dryness
- Degree of Cracking / raveling

Application rate varies between 0.1 and 0.2 gal/yd²

Seal Cracks As Soon As Possible

Clean Cracks Prior to Sealing

Emulsion grades used for cracks sealing:

MS-2, MS-2h, HFMS-2, HFMS-2h,
SS - 1, SS - 1h, CMS - 2, CMS - 2h,
CSS - 1 and CSS - 1h
