

# CSS-1hR



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*High Performance Cationic Bituminous Rejuvenating Fog Seal*

## DESCRIPTION

**CSS-1hR** is a bituminous rejuvenating, polymer modified fog seal specially designed to improve the service life of road surfaces. Fog seals are one of the most cost effective pavement preservation treatments available.

**CSS-1hR** is specially formulated to rejuvenate the original binders of the road surface on which it is placed by adding key ingredients lost in binders due to oxidation and aging. Polymer Modification provides better film thickness to the macro and micro texture and wear resistance than conventional fog seal emulsions. Roads can be returned to traffic as quickly; if not quicker, than conventional fog seal emulsions\*.

**CSS-1hR** is a cost effective preservation treatment for new and older chip seals, HMA parking lots, trail paths, road and highway shoulders, HMA pavement longitudinal joints, open graded, course mix and highly raveled HMA pavements.\*\*

\*Weather conditions and application rate can affect return to traffic time.

\*\*Caution must be exercised when choosing the surface on which a rejuvenating fog seal is placed to prevent unsafe skid conditions.

## FEATURES/BENEFITS

- Rejuvenates original binder of treated surface
- Extra wear resistance
- Enhanced coverage of pavement macro and micro texture
- Inhibits or retards raveling
- Provides water resistant seal
- Locks down chips on new chip seals
- Delineates driving lanes

## APPLICATION

Optimum application of **CSS-1hR** occurs when the ground temperature is above 50°F (10°C) and rising. **CSS-1hR** can be applied in high humidity but this will prolong the break time. Vehicular traffic should be kept off the treated area until emulsion is cured. Prior to application, **CSS-1hR** should be homogenized thoroughly. The surface to be sprayed should be free of all loose material and standing water. It must be spray applied by using a suitable calibrated distributor & experienced personnel.

## SPECIFICATIONS – TECHNICAL DATA

### CSS-1hR

<u>Emulsion Tests</u>	<u>Specification</u>	<u>Typical Results</u>
Viscosity, SFS @ 25°C, sec	< 100	25 - 50
Sieve, %	< 0.10	< 0.05
Residue by distillation, %	< 50.0	40
Pen, dmm	< 110.0	80 - 90
Storage Stability, %	< 1.0	≤ 0.5
Ductility, 25°C, cm, min.	40	> 60

### Product Handling Guidelines

- Emulsion must **not** be blended with other emulsions.
- Direct contact heat should only be done when absolutely necessary. This should be done sporadically and with recirculation or agitation if possible. Note: Emulsion which directly contacts any heat source above 210°F will experience break and separation.
- Emulsion separation will occur if frozen or boiled.
- Fog Seal emulsions are made by diluting emulsion concentrates with water; therefore, separation is normal over relatively short periods of time. If separation occurs, remix before spraying.

## APPLICATION RECOMMENDATIONS

**CSS-1hR** should be applied between 0.09 and 0.20 gallons/SY depending on the texture, porosity etc. of the surface and at product temperatures 160° - 180°F (71° - 82°C).



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