



VSS ASPHALT TECHNOLOGIES DATA SHEET VER: 1.0 --PRODUCT INFORMATION

DESCRIPTION:

RoadChem™ 502® is a cationic emulsifier for the manufacture of asphalt emulsions for cold mixes and slow set slurry.

RoadChem™ 502® is designed to have a wide range of compatibility with aggregates and is particularly suited to aggregates that have adhesion problems. The emulsifier provides extended mixing times to ensure coating and adhesion. This allows mixing with soils, graded or ungraded aggregates.

RoadChem™ 502® may be used with a range of different polymer modification including Neoprene, SBP, EVA, EMA and SBS.

RoadChem™ 502® emulsions pass the cement mixing test and are very stable on dilution.

BENEFITS:

- Stability
- Easy to handle and transport
- Wide range of compatibility with aggregates
- Extended mixing times to ensure coating and adhesion

PHYSICAL PROPERTIES:

Appearance: Brown Liquid - amine odour.

Flash point (Closed Cup):(C) >100

Pour point (C):10C

Boiling Point (C): 11C

Specific gravity: 25C 1.08-1.09 kg/lit

Viscosity. cps 25C: 1000

Storage life: Min 12 months in drums or bulk. (20-50C in covered area in sealed drums).

pH of 15% solution in water: 10.4-10.6

Solids: 60%

APPLICATION:

Emulsion Manufacture:

RoadChem™ 502® should be kept at 30C or higher prior to use for pumping. It should not be stored at above 60C.

RoadChem™ 502® can be easily neutralized with hydrochloric acid (concentrated). It is good practice to acidify the water before addition of RoadChem™ 502.

TYPICAL FORMULATION:

All formulations should be tested in the laboratory before use.

Slurry Seal Slow Set:

Asphalt: 62-63%

Soap: (based on total emulsion by weight) RoadChem™ 502® 1.5-1.8%

Concentrated HCl (pure): to pH 2.0-2.5

Water: to 100%

Cold Mix Emulsion:

Asphalt: 60-65%

Soap: (based on total emulsion by weight) RoadChem™ 502® 1.2-1.5%

Concentrated HCl (pure): to pH 2.0-2.5

NOTES:

Note that RoadChem™ 502® should be added to warm water that has already had the acid added to it. The emulsifier buffers the solution so mix for at least 20 minutes before testing pH.

Note also that slurry and microsurfacing emulsions must be designed relatively to the mixture. That is a full ISSA mixture design must be done to verify performance.

NOTES:

1. **RoadChem™ 502®** may be blended with RoadChem™ 500 to improve adhesion and extend mixing times of RoadChem™ 500® cold mix emulsions.
2. **RoadChem™ 502®** may be used with a wide range of retarders including aluminum sulfate, ammonium chloride, JP4, borax, and may be used in the prewet water in a neutralized solution of 5% as a retarder.
3. **RoadChem™ 502®** may be used as a retarder for slurry seal. Make up a 5% solution in water and adjust pH to 2.0-3.0 with acid. Use in prewet water at 0.05-0.15% based on aggregate weight.
4. **RoadChem™ 502®** neutralizes easily, The ratio of HCl : **RoadChem™ 502** to achieve required pH is about 0.4.
5. **RoadChem™ 502®** is also a useful antistripping additive for hot mix at levels of 0.5-2.0%. Note this should be injected into the pugmill or asphalt line and not preblended.
6. Latex should be co-milled into the emulsion for the best dispersion, emulsion stability and control of the final properties of the slurry. Latex may be post added or added into the soap if no co milling is not available.

SAFETY:

Contains alkaline corrosive materials. Will cause eye and skin irritation if significant contact is made. Use goggles, gloves and protective clothing when handling. Refer to the MSDS for further information.

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