

# EVERYTHING ASPHALT

## Slurry Seals and Micro-surfacing



*"Micro-surfacing has proven effective in filling ruts, reducing the amount of original rutting by 40%, and substantially increasing the friction characteristics of the pavement."*

*Transportation Research Record No. 1392*

### Effective Pavement Preservation

Slurry Seal is a mixture of fine dense-graded aggregate, asphalt emulsion, water, and mineral fillers. The components are mixed and placed on the road using a single machine. Slurry seals are effective preventive maintenance applications that seal and waterproof the surface while correcting minor defects and improving skid resistance and appearance. The thin surface is an excellent choice for city streets and airports. Micro-surfacing is a high-performance slurry seal, formulated with polymers and chemistry for a very quick cure and traffic return, as well as durability on high traffic pavements. Since micro-surfacing cures quickly, it can be placed thicker than slurry seals and used to fill ruts and for minor re-profiling. These seals can be placed on both asphalt and concrete pavements.



Type I uses a fine aggregate and is designed for parking lots and taxiways.

Type II, the most commonly used type, uses a coarser aggregate and can be used for all applications including arterial roads, residential areas and highways.

Type III uses the coarsest aggregate and is used on freeways, high speed roads, industrial applications and runways.

### Martin Asphalt Products for Slurry Seals

<b>SS-1h</b>	Anionic slow setting emulsion, the traditional choice for slurry seals. The mixture is easy to work, especially useful where there is a lot of handwork.
<b>CQS-1h</b>	Cationic quick setting emulsion formulated specifically for slurry seals. It cures more quickly than traditional SS-1h.
<b>CQS-1hP</b>	Cationic quick setting emulsion formulated specifically for slurry seals. It cures more quickly than traditional SS-1h, and has polymer for durability on more demanding projects.

### Martin Asphalt Product for Micro-Surfacing

<b>CSS-1hP</b>	The grade used for micro surfacing is specifically formulated for the project aggregate. Additional additives are also employed to control the breaking or setting of the emulsion.
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### Slurry Seal and Micro-Surfacing Benefits

- Both techniques seal small cracks and surface imperfections, waterproof the surface, and protect the pavement structure of both asphalt and concrete pavements.
- The new surfaces improve skid resistance.
- They provide attractive, smooth black surfaces which aid in lane delineation.
- The very thin surfacing is ideal where curbs and overhead clearances need to be preserved.
- The quick setting micro-surfacing emulsion reduces user delay by allowing traffic in about an hour after construction.
- The quick setting emulsion makes micro-surfacing suitable for night application on heavy-traffic streets, highways and airfields.
- Micro-surfacing fills depressions, small cracks and ruts, and provides some surface leveling.
- Both processes are cost-effective pavement preservation techniques.

### Surface Preparation and Construction

Laboratory designs determine the optimal emulsion and additive rates for the project aggregate with instrumentation developed to determine emulsion curing time. A continuously run machine is used for mixing the components on the project. The material flow rates are continuously monitored as the components are fed into the pugmill where they are thoroughly mixed. The mix is then placed by the machine at a predetermined depth. Traffic is returned once the seal has cured.

### Martin Asphalt Makes It Easy

There are a variety of treatments available for effectively keeping "good pavements good". Choosing the right treatment can make the best use of funds and give taxpayers smooth and safe roads while avoiding costly reconstruction and extended road closures. Through Martin Asphalt, you get **Everything Asphalt**—a full range of products for your pavements. In addition, you receive technical assistance in selecting the right materials and application. The company's AASHTO Certified Laboratory makes sure the products meet your specifications. And your products are delivered both on spec and on time via Martin's Gulf Coast network of production plants, storage facilities and transportation fleet including ocean-going and inland barges, rail cars and tanker trucks.

Contact us for help in selecting the right materials for your projects.

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