

HR-195 Field Performance and Evaluation of Slurry Seal Coats

Key Words: Slurry seal coats, Asphalt emulsions

ABSTRACT

As part of the overall research program of evaluating asphalt emulsion slurry seal as a pavement maintenance material, 31 duplicate 500 ft test sections were constructed on U.S. 6 between Adel and Waukee in Dallas County during September and October of 1978. These test sections included combinations of eight aggregates, two gradings, three asphalt emulsions, two mineral fillers, and a range of emulsion contents determined by laboratory mix designs. The emulsion contents of the test sections varied from 10.3% for Section 7A (Ferguson coarse) to 32.9% for Section 31A (lightweight aggregate). The post-construction performance evaluation of the test sections, consisting primarily of the friction tests and surface appearance observations, was conducted at different time intervals up to 24 months after construction. At the 24-month final evaluation, most of the test sections had carried a total of 1.4 million vehicles.

Based on testing and evaluation performed in the laboratory, experiences gained during construction, and post-construction performance evaluations, the following major conclusions were drawn:

1. Quality slurry seals of good appearances with satisfactory wear and frictional characteristics can be produced, provided the aggregates are suitable and the mixes are properly designed, evaluated, and applied.
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