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RESEARCH UPDATE

Update U95-2

EPOPLEX EPOXY PAVEMENT MARKINGS (INTERIM REPORT)

REFERENCE: WP 94-R-23, U94-16.

HISTORY: In November 1994, EPOPLEX epoxy paint was applied as edge and centerline pavement markings on 1.73 miles of US 302 as part of the Barre F 026-11(36)S project. This interim report chronicles the performance of these markings after one winter.

PRODUCT: EPOPLEX LS5, a two component, 100% solids, epoxy coating material was selected for this project. LS5 is designed to be a rapid setting highway marking offering durability and abrasion resistance. Drying time is estimated to be 10 minutes at 77^0F.

INSTALLATION: The markings were applied on November 16, 1994, with the ambient and surface temperatures being 40^0F and 43^0F, respectively. Tests indicated that the average thickness of the epoxy was 23 mils. The material took approximately 20 minutes to dry, due to the cold conditions. No vehicle tracking problems were noted.

STATUS: The project was surveyed for durability and retroreflectivity on April 18, 1995 and received an excellent rating. The epoxy markings, which are estimated to have a life of four years, appear to be performing well. The only apparent damage was that the centerline had some slight scalloping which occurred at random locations on one quarter to one third of the project length. Edgeline damage was limited to only a few occasional missing 2" by 2" chips. Both conditions were most likely due to snowplow scraping, although very little damage was noticeable throughout the entire project.

Retroreflectivity readings indicate that the product is adequately visible during night and adverse conditions. Because of safety concerns, only the white edge line was tested. At three locations: MM 2.65, MM 2.10, and MM 1.40, ten readings were taken, with the averages being 140, 309, and 160 millicandelas, respectively. These results are well above the Agency's informally agreed upon "failure" point of 100 millicandelas.

FOLLOW UP: The material will continue to be evaluated with emphasis on durability and retroreflectivity. Additional data and surveys will be conducted, culminating in a final report, to be issued at the end of service life.