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RESEARCH UPDATE

Update U95-13

HOT SPRAY THERMOPLASTIC MARKINGS

REFERENCE: WP 94-R-14

HISTORY: Pavemark Alkyd thermoplastic pavement markings were applied during 1993 on VT Route 11 in the towns of Chester and Springfield. Within one winter these markings had failed to such a degree that repair was necessary. This report documents the application of hot spray thermoplastic, which was used in an attempt to rehabilitate the thermoplastic markings.

MATERIAL: ThermoQuik 701, manufactured by Cataphote Inc. of Jackson, Mississippi. This material is solvent free, and quick drying, designed to be applied at 30 mils.

FIELD LOCATIONS: On June 5, 1995 the product was applied along the right edge line of VT 11, from MM 3.19 to 3.44 in Springfield, VT. The material was applied by representatives from Cataphote utilizing a Mini Mac 600, a small application truck manufactured by Mac Stripers of Montgomery, Alabama. Thicknesses of the material were checked during application and found to average 35-38 mils for both edges of the line, with the center portion averaging 50 mils. Retroreflectivity was also checked as soon as the material dried enough to test. The average was found to be 246 millicandelas (mcdl), with a high of 302 mcdl and a low of 194 mcdl. For comparison purposes, the retroreflectivity on the two year old yellow center line was measured at 116 mcdl.



ThermoQuik 701 (White Edge Line)

On October 11, 1995, retroreflectivity readings were again taken. The average reading was 260 mcdl, with a high of 296 mcdl and a low of 220 mcdl.

FOLLOW-UP: This material will be examined in the early spring to determine how well it survives a maintenance season. It will also be monitored to determine its life cycle costs as compared with other pavement marking materials.