

MATERIALS & RESEARCH DIVISION

Reviewed By:

*RF*  
Robert F. Cauley.  
Materials & Research



Prepared By:

R.S. Kinary *RSK*  
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RESEARCH UPDATE

Number U93-1

"Bonifibers B" Polyester Modified Pavement  
(Interim Report)

REFERENCE: Report 87-3; Update U87-12; Update U89-3

HISTORY: In 1984 approximately 1000 tons of pavement modified with "Bonifibers B", a polyester fiber, were produced and placed on US Route 2 as part of the Berlin-Barre-East Montpelier F028-3(23)S paving project. The production, application, and early performance of this project were reported in detail in the initial report 87-3. Interim performance was reported in updates U87-12 and U89-3.

STATUS: Crack surveys, Mays roughness values, and rutting depth measurements have continued to be collected and analyzed. As of July 1992 average Mays values were 172 for the standard mix and 171 for the modified mix. A December 1992 crack survey showed that the standard mix had 78% of the original cracks reflected while the modified mix only had 46% (58% of standard). Rutting depth measurements taken in the wheel paths averaged 4/16" for the standard mix and 3/16" for the modified mix.

COST: The cost per square yard for the 1-3/8" of bituminous pavement was \$2.35 for the standard mix and \$3.35 for the modified mix a 42% increase.

SUMMARY: To date, the "Bonifiber" modified pavement has outperformed the standard mix in reflective crack prevention, as the graph illustrates, but has not improved ride quality. The pavements will remain under evaluation to determine life cycle cost.

