

OFFICE MEMORANDUM



MICHIGAN
STATE HIGHWAY DEPARTMENT
JOHN C. MACKIE, COMMISSIONER

April 9, 1964

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To: Traffic Control Devices Committee:

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From: A. J. Permoda

Subject: Progress Report on 1963 Traffic Paint Performance Tests.
Research Project R-47 G-36(16). Report No. R-457.

This report is presented for review by the Committee, which at its Spring meeting is scheduled to initiate requisitions for traffic paints for the forthcoming 1964 Performance Tests. The following summaries give the Committee information to serve as a basis for selecting producers to submit paints for the tests.

Producers submitting paints for the 1963 tests, currently in progress, were the same as for the previous year, as follows:

1. Acme Quality Paints, Inc. of Detroit
2. Argo Paint & Chemical Co. of Detroit
3. Baltimore Paint & Chemical Co. of Baltimore
4. Boydell Brothers Co. of Detroit
5. DeSoto Chemical Coatings Inc. of Chicago
6. Glidden Company of Cleveland
7. Jaegle Paint & Varnish Co. of Philadelphia
8. Prismo Safety Corp. of Huntingdon, Pa.
9. Standard Detroit Paint Co. of Detroit
10. Stiles Paint Co. of Kalamazoo
11. Wm. Armstrong Smith Co. of East Point, Georgia
12. Truscon Division of Devoe & Reynolds of Detroit

In order to indicate the trend in performance of traffic paints as evaluated in recent years, the range of six-month Service Factor ratings is tabulated for paints in the 1963 tests, as well as those for the preceding three years as follows:

Paints	Six-Month Service Factor Range			
	1963	1962	1961	1960
Whites	79-46	80-56	81-57	79-54
Yellows	81-49	84-57	85-54	79-45

A comparison of these ratings, considering a relocation of two test areas in 1961 from the comparatively tougher US 127 location, shows a constancy in performance of the submitted test paints over a period of the past four years.

Paints submitted for the 1963 tests were put down in the four field areas, shown in Fig. 1, from August 7 to 14, 1963. All paints are being evaluated in full performance tests even though a few did not meet all specification requirements; others were borderline in conforming to the requirements. Deficiencies for both categories are as follows:

1. Acme Paint Co. : excessively high viscosity and low settling index on the white; borderline settling index and did not meet the color standard on the yellow paint.
2. Argo Paint Co. : borderline low viscosity and settling index on the yellow paint.
3. Baltimore Paint Co. : borderline in meeting color standard on the yellow paint.
4. Boydell Bros. Co. : borderline low viscosity and excessive bleeding on tar base on the white; excessive low viscosity and bleeding on tar base, and borderline settling index on the yellow paint.
5. DeSoto Chemical Co. : borderline high viscosity on the white; borderline high viscosity, settling index, and meeting color standard on the yellow paint.
6. Glidden Company: Borderline low viscosity and bleeding on tar base on the white; borderline bleeding on tar base and meeting color standard on the yellow paint.
7. Jaegle Paint Co. : excessive bleeding on tar base on the white paint.

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8. Prismo Safety Corp.: borderline in meeting color standard on the yellow paint.
9. Standard Detroit Paint Co.: did not meet color standard on the yellow paint.
10. Wm. Armstrong Smith Co.: excessively low settling index on the white; borderline long drying time and excessively low settling index on the yellow paint.
11. Truscon Division of Devoe and Raynolds: borderline in meeting color standard on yellow paint.

The preceding comments on the performance paints show that four of the twelve submitted whites and yellows did not meet all specification requirements. Others were borderline in meeting all of the requirements, and included five rated borderline in meeting the color standard established for the yellow paint.

This is the second successive year in which a high percentage of submitted paints fails to meet specification requirements, or is borderline in doing so, and reverses the trend of several years ago, after the Committee had issued special notices to the producers as noted in Committee minutes of May 9 and July 15, 1960.

The producers, listed above, should be notified of the deficiencies of their respective products when Requests for Bids are placed for the 1964 performance paints. These notifications should emphasize that a paint's failure to meet specification requirements is cause for disqualification from field performance tests, and therefore, from bidding on roadway striping requirements.

Traffic paints purchased for the 1964 Performance Tests must be received by June 15, 1964, to provide the Laboratory time to run qualification tests prior to application in mid-August.

Specifications to accompany the 1964 Requests for Bids are those dated "4-23-63" with a subsequent amendment, providing that the Committee approves a recommended revision covering the color requirement on yellow traffic paint.

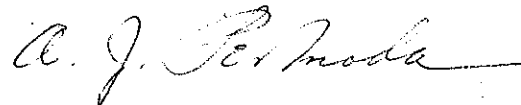
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Experimental Paints

The following comments are made relative to the experimental stripes in the 1964 field tests, based on the past six months of exposure:

1. City of Detroit white had a Service Factor rating equivalent to fifth best performance paint. The yellow was equivalent to sixth best, but both were considered fairly good ratings because of the close grouping.
2. A mildew-inhibiting extender in a white paint did not give improved performance over its control paint.
3. Epoxy (two-component) whites (applied in two areas each) gave only fair performance, at drying times within specification requirements.
4. Special bead studies on blue stripes show that standard beads give reduced night visibility at fair color fidelity. The white Scotchrock beads give excellent night visibility but poor color fidelity because returned light is white. The blue Scotchrock beads give excellent night visibility at good color fidelity.
5. Special bead studies on yellow stripes show that the experimental yellow beads are giving improved performance over the Type III beads at the six-month level. Comments relative to white and yellow Scotchrock are the same as for the blue.

OFFICE OF TESTING AND RESEARCH



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