

OFFICE MEMORANDUM



MICHIGAN
DEPARTMENT OF STATE HIGHWAYS

March 30, 1967

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To: Traffic Control Devices Committee:

H. H. Cooper, Chairman
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From: A. J. Permoda

Subject: First Progress Report on 1966 Traffic Paint Performance Tests.
Research Project 47 G-36(19). Research Report No. R-628.

This progress report is presented for review by the Committee, which is being informed that the following producers submitted paints for the 1966 tests, currently in progress:

1. Argo Paint and Chemical Co. of Detroit.
2. Baltimore Paint and Chemical Corp. of Baltimore.
3. Forman-Ford, Inc., of Minneapolis.
4. Glidden Co. of Cleveland.
5. Jaegle Paint and Varnish Co. of Camden, N. J.
6. Prismo Safety Corp. of Huntingdon, Pa.
7. Sherwin-Williams Co. of Detroit.
8. Standard Detroit Paint Co. of Detroit.

Compared to 1965, this list has one deletion--Truscon Division of Devoe Paints, which was on strike when samples were to be submitted and could not comply.

The current tests, governed by specifications dated April 1, 1966, differ from former ones in that they are on a biennial basis, rather than the former annual basis. The change was authorized by Committee action at its meeting of May 3, 1966; this will result in using 1966 tests as the basis of the Department's striping requirements for both 1968 and 1969.

In order to indicate the current trend in road performance of traffic paints evaluated in recent years, the following range of six-month Service Factor ratings is tabulated for paints in the 1966 tests, along with similar ratings for the preceding three years:

Six-Month Service Factor Range: 1966-1963

Paints	1966	1965	1964	1963
Whites	70-60	77-64	74-52	79-46
Yellows	74-63	80-70	77-66	81-49

Comparison of the 1966 ratings with those of previous years shows that the range, (10-1/2 points average) is about the same as in 1965 (11-1/2 points average), but not as great as in 1964 (16-1/2 points average) nor 1963 (33-1/2 points average). Therefore, the trend over the four-year span is narrowing of the range values, mostly by raising the low values, brought about by an upgraded quality of the poorest paints. The high values of the 1966 ranges are lower than those of the previous years. This lowering does not necessarily signify lower inherent quality of the best paints, since part of it is due to frequent snowplowing during the past winter (noted especially in Area 1C), and part to steady increase of traffic volume.

Paints submitted for the 1966 tests were put down August 9 to 17, 1966, in the same four areas used in the 1965 tests. Specific locations are shown in Figure 1. All submitted paints were put down for field evaluation, though in subsequent testing a few failed to meet specification requirements; others were borderline in meeting the requirements, with deficiencies as follows:

1. Argo: White--low viscosity and excessive bleeding on asphalt and tar bases.
Yellow--low viscosity and excessive bleeding on asphalt base.
2. Baltimore: Yellow--borderline low viscosity.
3. Forman-Ford: White--borderline low viscosity and borderline drying time.
Yellow--borderline drying time.
4. Glidden: White--borderline low viscosity.
Yellow--borderline high viscosity and borderline in meeting color requirements.
5. Jaegle: White--borderline drying time.
Yellow--borderline low viscosity and borderline drying time.
6. Sherwin-Williams: White--low viscosity and failed vehicle stability test.
Yellow--borderline low viscosity and failed vehicle stability test.
7. Standard Detroit: White--borderline bleeding on asphalt base and borderline reflectivity.
Yellow--borderline high viscosity.

Of the 16 paints received for current tests, four failed, nine were borderline, and three met all specification requirements. In this respect, compliance with requirements is very poor, suggesting that the Committee review this matter and recommend action for improvement.

The producers listed above should be notified of the deficiencies in their respective products when Requests for Bids are placed for the next tests, in 1968. These notifications should emphasize that a paint's failure to meet all specification requirements is cause for disqualification from field performance tests, and therefore from bidding on roadway striping requirements.

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Experimental Paints

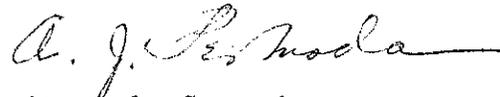
No experimental paints or beads were included in the 1966 road performance tests, though the performance of three Ontario Highway Department whites is being evaluated in two test areas, on an exchange basis.

Cooperative Tests

The Laboratory's striping crew of two men assisted in depositing test stripes a) in Ohio on June 1, 1966 (a service which may not be requested in the future, if they complete their paint striper), b) in the City of Detroit on July 26, 1966, and c) in Wayne County on July 28 and August 3-4, 1966, in two test areas.

The Wayne County stripes were cooperatively inspected on March 1, 1967, and found in slightly better than normal terminal condition: two photographs were taken. Those in Detroit will be inspected in late March or early April 1967.

OFFICE OF TESTING AND RESEARCH



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cc: E. A. Finney
Traffic Paint Subcommittee

