

Sales Investigation
No. WR 594

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MEMORANDUM REPORT NO. M-323

Marshall Laboratory
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CLOSED CUP FLASH POINTS OF CERTAIN 93, 202, 246, AND 253 LINE FINISHES

Summary:

Flash Point determinations were made on a series of Duco and Dulux finishes using a Tag Closed Tester (A.S.T.M. D56-36) in accordance with a request from Mr. E. A. Fluevog, Investigation No. WR-594. The following results were obtained -

<u>Code</u>	<u>Color</u>	<u>Flash Point °F. (Tag Closed Tester)</u>
93-004	Green	53
93-005	Black	81
93-508	White	50
93-1032	Blue	53
93-1863K	Red	53
93-35856	Gray	55
202-39393G	Green Metallic	23
246-1	White	30
246-2048	Black	31
246-9089K	Red	23
246-35856	Gray	17
246-35857	Blue	14
253-020	Black	34
253-0095	White	36

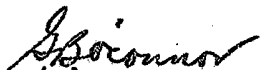
Details of the Testing Procedure:

All samples were tested according to TM 205 A (A.S.T.M. D56-36) in every detail except that the introduction of the test flame was made before and at every one minute interval after heating was started until the sample flashed. This was done to provide a more uniform method of testing because it was difficult in the first part of the test to control the temperature rise within the specified limits of $1.8 \pm 0.2^{\circ}\text{F}$ due to the low temperatures that had to be employed. None of the samples showed skin formation during the test probably due to the closed feature of the tester and the low temperatures employed.

The 93 Line samples were cooled by storage in a freezer having a temperature of 14°F. (-10°C.). The precooled sample was placed in the precooled cup and tested immediately. Crushed ice and water were used in the bath of the tester.

The 202, 246, and 253 Line samples were handled as follows: the sample was measured into the tester cup and the bath of the tester was filled with a 23% aqueous sodium chloride solution, then the entire tester ready for testing was placed in a dry ice chest having a temperature of about -40°F. until the sample temperature fell below 0°F. The tester was taken from the dry ice chest and tested immediately.

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