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NEWARK PLANT
PIGMENT COLOR RESEARCH REPORT

Final Report

BT-181-D - INCREASED BATCH SIZE

Period Covered: June 1944 - June 1945

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Period Covered: June, 1944 - ~~June~~ 1945

SUBMITTED BY: V. Chalupski

DATE SUBMITTED: 11-5-45

APPROVED BY: V. Chalupski

V. Chalupski Nov. 20, 1945
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INTRODUCTION

The phosphotungstic-molybdic toner of Victoria Pure Blue B0 was included in the campaign to increase batch size in order to reduce costs, carried out during 1944 and 1945. Preliminary work was done cooperatively by the laboratory and semi-works; a new process was then taken thru the semi-works to the plant and standardized; the new process is designated K-2111, in which the batch size has been increased from 90 lbs. to 240 lbs.

SUMMARY & CONCLUSIONS

A series of 10 semi-works batches and one plant batch was made in 1944 to investigate the possibility of increasing the concentration of both the dye solution and the phosphotungstic acid solution, in the standard process (K-2011), in order to make increased batch size possible. Fairly satisfactory products were thus made. A slightly revised formula was concurrently developed in the laboratory embodying the same features. This process was then taken to the plant, seven experimental batches being made there. Adjustments of amount of dye and strike temperature were studied to obtain standard quality. A mix of two plant batches was set up as a new standard representing the new process, K-2111. This formula is essentially the same as its predecessor, K-2064, except for the changes in concentration of solutions and batch size discussed above, the use of dye on an "as is" weight basis (adopted because performance was better and more uniform than using dye on analyzed basis) and preparation of the phosphotungstic-molybdic acid solution at 200°F. instead of at boil for ease of operation. The development of the K-2064 formula is discussed in Research Report KN-44-58.

The revised process was about 3 cents per pound cheaper in ingredient cost, and 20 cents per pound less in out-of-pocket cost.

EXPERIMENTAL DETAILS

See Development Section Data Book DSN-45-17, and K-2111 formula and notes.