

E. I. DU PONT DE NEMOURS & COMPANY
KREBS PIGMENTS DEPARTMENT
256 VANDERPOOL STREET
NEWARK, NEW JERSEY

NEWARK PLANT
PIGMENT COLOR RESEARCH REPORT

BENZIDINE YELLOW YT-564-D and YT-571-P (A)
3,3'-dichlor benzidine-(aceto-acet-ortho-toluidide)₂

Period Covered: April 1947 - May 1948.

FILE:

DATE: 2/24/49

KN-49-5

221.4

Serial No. KN-49-5

Copy No. 1

Copy to:

- #1 - Numerical File
- 2 - Research Office (221.4)
- 3 - Library File (221.4)
- 4 - #10 Building File
- 5 - V. Chalupski - Plant Files
- 6 - D. B. Killian, Newark
- 7 - Extra

NEWARK PLANT
PIGMENT COLOR RESEARCH REPORT

Final Report
PLANT DEVELOPMENT

Title: BENZIDINE YELLOW YT-564-D and YT-571-P (A)
3,3'-dichlor benzidine $\pm$ (aceto-acet-ortho-toluidide)₂

Period Covered: April 1947 - May 1948.

Charge: A-IIC-220

Admitted per
SUBMITTED BY: A. D. MILLS *COB*

DATE SUBMITTED: 1/27/49

COB Brizzolara
APPROVED BY: A. A. BRIZZOLARA *1-27-49*

DATE ISSUED: 2/24/49

INTRODUCTION

After a brief semi-works development a satisfactory process was obtained in lot 9196. This formula included the use of sulfamic acid to destroy the excess nitrous acid and a lower temperature of coupling (65 - 68°F) was used. Plant development was undertaken on the 9196 process.

SUMMARY AND CONCLUSIONS

(1) A total of 14 batches were made in the plant; four on a 405# batch size and ten on an 810# size. Of the first four, two were coupled at 68°F and two at 86°F. The process responded to this variable and the (B) formula was written using a coupling temperature of 78°F. The two batches coupled at the lower temperature of 68°F. were s lighter and s weaker than those coupled at 86°F. Ten batches were made on the (B) process and all were satisfactory in quality.

(2) Following the development study the (C) procedure was written up on a 1.6 mol basis (1035#) with a 78°F. coupling.

(3) A blend of 50 pounds each of the first four lots was made and set up as current standard. This is YT-564-D (C), SD-48548, lot 82488 and was approved by the Sales Division.

(4) Production assumed supervision of the production of YT-564-D (C) on April 8, 1948.

(5) YT-571-P (A), which is YT-564-D (C) press cake was accepted by Production on May 21, 1948.

REFERENCES

- KN-49-3 Laboratory study of K-2402
- KN-49-4 Semi-Works Development of YT-564-D.
- DSN-49-8 Plant Development of YT-564-D.