



LABORATORY REPORT

CONFIDENTIAL

PIGMENTS DEPARTMENT
CHESTNUT RUN

THIRD & FINAL

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CUSTOMER

WORK REQUEST NO.

DATE

NC-6-73

December 17, 1973

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SUBJECT

MONASTRAL® BLUE G, BT-476-D IN CLEORESINOUS INKINTRODUCTION:

The First Report (4/30/73, VJL) reported the Cowles dispersibility of BT-476-D SW-73-30746 (semi-works) comparable to Ciba-Geigy's Irgalite Blue, IGIB in a publication gravure heatset ink.

The Second Report (9/17/73, JAM) reported initial BT-476-D production (five lots tested) and most lab finished BT-476-D samples unsatisfactory as Cowles dispersible products.

This report covers Cowles dispersibility of 2nd BT-476-D plant production, lab finished samples and Ramapo Blue B, BP-173-D. BP-173-D was included because it generally has good dispersion properties in oleoresinous ink systems.

CONCLUSION & SUMMARY:

All BT-476-D production and lot finished samples tested are not considered satisfactory Cowles dispersible products. They are inferior to IGIB because they had tailings, separation and generally poorer texture after one canning pass (medium tight setting) over the three roll mill.

BP-173-D had minimal tailings and separation and fair texture and is also considered not Cowles dispersible.

Changes made in grind pigmentation, volume levels, grind temperature and time did not improve BT-476-D plant production Cowles performance.

LAB WORK BY: G. W. Rodgers

SIGNED

J. C. Markiewicz

EXPERIMENTAL DETAILS:

Pigments Tested

See Table I for listing.

Ink Preparation

Cowles dispersed heatset ink made per TF-2302. LGLD was ground at 20.66% pigment and most BT-476-D samples were ground at 27.80% pigment (considered optimum pigment loading).

References

NC-6-73
ILF-30-73

8

JAM/lb

7/73

C. W. T.

Ref 4

BT-476-D

Experimental plant lots 42229, 42230, 42266, 42267 and 42288 have been evaluated at Chestnut Run and/or Newark as per 73-00476 and Ciba Geigy's LGLD. Both sets of test results rate LGLD best in Coulter dispersibility with 73-00476 a close second and the plant lots a distant third.

The causes of the inferior dispersibilities of the plant production lots are under active investigation. The prime cause of poor performance yet to be investigated appears to be the combination of high pressure (center feed) pressing followed by ineffective pulverization. All 5 lots (~5000#) are being held at Newark, pending the complete evaluation.

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Ref # 5

To J. Jackson Location _____
From W. Lewis Location _____ Phone No. _____
Subject XOP 428 BT-476-D Date 8/5/73

① Original plant procedures attached.

Other millings have been made (7 hours milling, 9.3# resin, etc.) but this procedure probably is the best.

② Ed Gillow has ²1/2 gallon mill powder (plant) samples from about 30-35 different millings. Also has 5-10 gallons Newport presscake.