



PIGMENTS DEPARTMENT
CHESTER, NEW JERSEY

LABORATORY REPORT

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CUSTOMER

WORK REQUEST NO.

DATE

G-63-74

November 14, 1974

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SUBJECT

MONASTRAL® BLUE G, BT-473-D IN INMONT'S PUBLICATION GRAVURE
INK TO DETERMINE FLOCCULATION RESISTANCE

INTRODUCTION:

Inmont is interested in reducing their formulating costs by using a less expensive pigment. As a result, they are looking at BT-473-D as a replacement for BT-417-D. BT-473-D is a less expensive pigment than BT-417-D (about 15% less expensive) and offers satisfactory tinctorial properties. Inmont's only concern is whether BT-473-D has adequate flocculation resistance.

We ran Inmont's flocculation test of BT-473-D and compared it against BT-417-D. BT-297-D and BT-476-D were also tested to check their flocculation resistance.

CONCLUSION AND RECOMMENDATION:

BT-473-D does not flocculate in Inmont's test. BT-417-D shows a very slight flocculation by the test.

We recommend BT-473-D as a replacement for BT-417-D on the basis of slightly better flocculation resistance, comparable strength and tinctorial properties, and better value in use.

SUMMARY:

BT-297-D and BT-473-D do not flocculate by the test. BT-476-D flocculates severely by the test and BT-417-D shows slight flocculation.

LAB WORK BY: W. R. Mendenhall

SIGNED

D. L. CHANDLER/lb

N35380

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DISCUSSION:

Fresh inks ball milled at 15% pigment are let down to 3% pigment using Immont's varnish for flocculation tests. We have heard from Sinclair Valentine that using other solvents to let down can influence flocculation. We did not encounter this problem because we used Immont's varnish for let down purposes.

Flocculation test: Tints of fresh and oven-aged inks were compared for strengths. A loss of strength indicates flocculation occurred during the accelerated aging period. (See attached sheet for aging times.) An equal match indicates no flocculation.

EXPERIMENTAL DETAILS:

Pigments tested

Monastral® Blue GF, BT-417-D
Monastral® Blue G, BT-473-D
Monastral® Blue G, BT-297-D
Monastral® Blue G, BT-476-D

Ink preparation

See attached sheet for ink preparation

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INK PREPARATION

Fresh Inks
Ball milled
Time

15% pigment
16 hours

Flocculation Test
Fresh inks reduced using Inmont's varnish to:
Aged in oven
Temperature

3% pigment
5 days
140°F

Tint Preparation
Tint base
Aged ink
Tint base
Red Devil shaker (mixer)

R-900
1 part
10 parts
5 minutes

Tint Base Preparation (R-900)
R-900
Varnish
Total
Pebble milled
Container
Porox balls

140.0 gms
260.0 gms
400.0 gms
16 hours
1 quart jar
1 pint of 1/2"