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PIGMENT COLOR RESEARCH REPORT

Final Report

RESINOUS OIL TREATMENT OF VARIOUS PIGMENTS

APRIL 2, 1946 to MAY 15, 1946.

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NEWARK PLANT

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RESINOUS OIL TREATMENT OF VARIOUS PIGMENTS

APRIL 2, 1946 to MAY 15, 1946

SUBMITTED BY: *F. K. Schnee* 8/8/46
F. K. Schnee

DATE SUBMITTED: July 22, 1946.

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I. INTRODUCTION

Since the treatment with Resinous Oil X-1 (Neville Co.) emulsion had been successful in improving dispersion in linoleum composition of "Monastral" Blue Lake BP-263-D, Red Lake RM-545-D (KN-46-21), and Pigment Scarlet Lake RE-559-D (Memo Report, MR 222.41), it was decided that it be tried on the following pigments in an attempt to improve strength and texture: BP-173-D, BT-181-D, B-216-D, YE-421-D, RT-354-D, RT-427-D, RT-443-D, RT-521-D and RT-530-D.

II. CONCLUSIONS

Considering the results obtained when the above mentioned pigments were treated with resinous oil emulsion, the treatment does not appear to be warranted except in three cases where the strength of the product was increased. The B-216-D treated product was about 10% strong versus control to which naphthenic acid is added. Use of resinous oil instead of naphthenic acid represents a savings of \$0.46 per 100 lbs. which is considerable on a volume color. The RT-521-D treated product was about 15% strong versus control and the RT-427-D treated product was about 30% strong versus control. The control, experimental product, and standard were about equal throughout in wedge grit in each of the three cases.

BT-181-D and RT-530-D were weakened very much by the emulsion treatment. The rest of the pigments were unaffected.

III. SUMMARY RESULTS

eres Untreated plant slurries were obtained for use in this work. Solids content of each slurry was taken and one hundred grams (drip basis) of each were filtered and dried as control and another one hundred grams was treated with resinous oil emulsion (10 parts color/1 part emulsion) prepared according to K-2274.

Samples were sent to the Ink Laboratory where wedge grit grinds were made. Samples of the inks were saved at 2L, 4L, 6L, 1T, 3T, 6T. Rate of strength development was run on each set of inks. Results follow:

<u>Pigment</u>	<u>Treated product versus Control at 5T.</u>	<u>(Treated product Wedge Grit vs control)</u>
BP-173-D	40% weak	low throughout
BT-181-D	9% weak	equal throughout
B-216-D	equal	" "
YE-421-D	10% weak	gains less strength
RT-354-D	30% weak	slightly high
RT-427-D	30% strong	" "
RT-443-D	20% weak	equal throughout
RT-521-D	20% strong	" "
RT-530-D	15% weak	" "

Dilution of the treated pigment due to retention of Resinous oil would warrant 10% weakness.

IV. REFERENCES

Notebook 1017, experiments 25 through 32 and 44 for experimental details.

KN-46-21 - Report on Red Lake RM-545-D treated with resinous oil emulsion.

Memo Report on Scarlet Lake RE-559-D treated with emulsion.

K-2274 - Formula for preparation of emulsion.