

FABRICS AND FINISHES DEPARTMENT
PRODUCTION DIVISION

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File.

cc: O. R. Volk - Building
H. E. Adams - Marshall Lab.
R. W. Laurell - Marshall Lab.
W. H. Toole - Marshall Lab.
G. I. Mulholland - Flint Lab.
R. H. Vining - Phila. Plant

C. W. Walker - Building
W. L. Tindall - Building
E. T. Breuer - Building
R. G. Neerland - Building
J. D. Rothfuss - Building

Wilmington, Delaware
December 3, 1965

W. H. T.
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R. A. DE WALL - CHICAGO
R. E. DURFEE - EVERETT
C. H. THOMPSON - FORT MADISON

N. I. DRESS - PHILADELPHIA (2)
P. O. PEASLEY - SO. SAN FRANCISCO
F. S. BAKER - TUCKER

MARSHALL DEVELOPMENT LABORATORY SUPPLEMENTARY RELEASE LETTER NO. 2013-B
SPRAY PAINT
FABRICS & FINISHES DEPARTMENT

"PRODUCTION NOTICE OF APPROVAL"

This transmits subject release dated November 26, 1965,
being processed on a "No Approval Action Required" basis.

L. S. BAKER

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LSB/svb

FABRICS AND FINISHES DEPARTMENT
PRODUCTION DIVISION

[Handwritten signature]

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Wilmington, Delaware
December 3, 1965

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MARSHALL DEVELOPMENT LABORATORY SUPPLEMENTARY RELEASE LETTER NO. 2013
SPRAY PAINT

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L. S. BAKER

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LSB/svb

N42509.01

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K. F. BROWNING (2)
CONSUMER PRODUCTS SALES
MARKETING & PRODUCTS MGR.

CC: J. W. Nestor, Wilm. F&F
G. T. Vaala, " "
P. I. Poindexter " "
L. S. Baker, " "
R. B. Davis, " "
J. A. Klacsmann " "
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O. C. Wetmore, " "
R. N. Sanger, " "
G. I. Mulholland, Flint
P. J. Graham, Exp. Sta.
O. H. Bullitt, Jr. Lab.

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MAH 24 1966

MARSHALL DEVELOPMENT LABORATORY SUPPLEMENTARY
RELEASE LETTER #2013-C

MARSHALL LAB. FILE

CONVERSION OF DU PONT SPRAY PAINT GLOSS WHITE, FLAT WHITE
AND HUNTER GREEN FROM COMPETITIVE LACQUERS TO "DUCO*"
LACQUERS

RELATED RELEASE LETTERS #2013, #2013-A, #2013-B

SALES INVESTIGATION WT-29-65

COST CODE: 3350 - IMPROVE. OF ESTABLISHED BUSINESS

PROPOSAL AND EXTENT OF RELEASE:

The Du Pont Spray Paint Line is currently based on "Duco" nitrocellulose lacquers except the Gloss White, Flat White and Hunter Green which are based on nitrocellulose lacquers purchased from Lenmar Lacquers, Inc. by Sprayon Products, Inc. Sprayon custom loads the entire Du Pont Spray Paint line. This letter proposes conversion of the Gloss White, Flat White and Hunter Green to the "Duco" nitrocellulose lacquer quality. The adoption of this proposal will terminate the purchase of competitive lacquers for use in Du Pont Spray Paint. This proposal is being made by the Development Laboratory at the request of Marketing.

"*Registered Du Pont Trademark"

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MANAGEMENT DECISION REQUESTED:

Management is requested to approve this proposal after taking into consideration the following factors:

1. Conversion of these colors to lacquers of our own manufacture will improve Du Pont earnings. (See Cost Information).
2. The "Duco" nitrocellulose lacquers offer a different balance of properties than the competitive lacquers. (See Technical Section).
3. Use of "Duco" nitrocellulose lacquers in lieu of the Lenmar lacquers will give Du Pont greater control of processing variables.
4. Satisfactory stability information in aerosols is limited to two (2) weeks at 120°F. Past experience has shown this to have good correlation with long term shelf stability.

TECHNICAL OPINION:

Although the proposed "Duco" Gloss White and Hunter Green are slightly inferior to the Lenmar Lacquers in gloss, adhesion and flexibility, no customer dissatisfaction is expected since a recent survey showed that hiding and drying time are the significant properties. The balance of properties offered including stability are believed commercially satisfactory. We favor approval of this release.

DESCRIPTION OF PRODUCT:

Although the proposed Gloss White and Hunter Green "Duco" nitrocellulose lacquers show slightly lower gloss than the Lenmar lacquers, they are at the same gloss level as the remainder of the Du Pont Spray Paint line. In addition, the hiding of the proposed colors is slightly better than the Lenmar lacquers. The consumer is more critical of hiding than gloss, adhesion or flexibility.

Again, the proposed Gloss White and Hunter Green are slightly poorer than the Lenmar lacquers in flexibility and adhesion but are equal to the remainder of the Du Pont Spray Paint line. The proposed Flat White is at a lower gloss level than Lenmar Flat White. Marketing has indicated that the lower gloss level is preferred. It is equal in adhesion and flexibility.

The following table shows a comparison of the proposed "Duco" lacquers, the current Du Pont Spray Paint and Krylon.

	<u>Lenmar Lacquer</u>	<u>"Duco" Lacquer</u>	<u>Krylon Lacquer</u>
Gloss White 60° Gloss-Aluminum	87	80	85
60° Gloss-C.R.S.	86	77	85
Hiding after 4 passes	Good	Good +	Fair
1 Wk. Impact-Aluminum*	4-9	5-8	6-8
" " Impact-C.R.S.	3-1	2-1	4-2
" " Conical Mandrel-Alum.**	0"	4"	0"
" " Conical Mandrel-C.R.S.	0"	4"	0"
Hunter Green -60° Gloss-Aluminum	99	85	76
60° Gloss-C.R.S.	84	75	71
Hiding after 2 passes	Good	Good +	Fair
1 Wk. Impact - Aluminum	5-9	6-8	7-6
" " Impact - C.R.S.	3-0	2-0	5-1
" " Con. Mandrel - Alum.	4"	0"	3"
" " Con. Mandrel - C.R.S.	4"	1"	0"
Flat White 60° Gloss - Aluminum	14	9	13
60° Gloss - C.R.S.	14	10	14
Hiding after 4 passes	Good	Good +	Fair
1 Wk. Impact - Alum.	3-8	3-7	5-8
" " Impact - C.R.S.	1-0	1-0	1-0
" " Con. Mandrel. - Aluminum	4"	4"	4"
" " Con. Mandrel - C.R.S.	4"	4"	4"

* -Convex-Concave; 10= no failure; 0 = complete failure

** -0"= no failure; 4" = complete failure across panel.

C.R.S. = cold rolled steel.

COMPETITIVE SITUATION:

The table above (under Product Description) shows property comparison versus Krylon the leading competitive aerosol paint. While the property balance in all categories does not favor the proposed composition, the key property of hiding is slightly improved. The service properties such as flexibility and adhesion are not readily perceived by the consumer. Therefore, we believe that our competitive situation will be slightly improved by the adoption of this proposal.

TABULATION OF COMPOSITIONS:

Compositions will not be shown here since they are shown in the attached formulae. In addition, the compositions of the Lenmar Lacquers and Krylon lacquers are unknown.

REPRODUCIBILITY:

We have no reproducibility data on these compositions. However, since these formulations are standard nitrocellulose quality we expect no reproducibility problems.

CONTINUING LABORATORY WORK:

All of our tests were performed on Du Pont packaged aerosol paints. After Sprayon packages these formulae we will again test them against the Lenmar and Krylon lacquers. Six month and twelve month stability of the Sprayon packaged aerosols will be run by the Development Laboratory. Sprayon runs 2 weeks at 140°F. stability tests on all formulae they package.

COST INFORMATION:

The proposed lacquers will be transferred to Sprayon at no charge. Sprayon will charge us packaging costs only. Investigation WT-29-65 requested mill costs of \$2.05 - 2.20 per gallon (drums - 1000 gal. batches). The mill costs as calculated by the Wilmington Cost Section are as follows:

243-64746	243-64747	243-64748
<u>Flat White</u>	<u>Gloss White</u>	<u>Hunter Green</u>

Mill Cost per gal. -
drums - 1000 gal.
batches

\$2.385

\$2.088

\$2.106

Our best estimate is that Du Pont will save approximately
\$.03 per can by converting to the above formulas.

MANUFACTURING PROBLEMS:

No unusual manufacturing problems are associated with this release. No new raw materials are involved. This release will have no appreciable effect upon the consumption of established raw materials or intermediates. The new products will be made on conventional "49" Process equipment. No special equipment or contamination problems are associated with this release.

TOXICITY OR OTHER HAZARDS:

The toxicity hazard is not greater than the rest of the Du Pont Spray Paint line with the exception of the Hunter Green which contains more than 1% metallic lead based on paint solids.

LABEL INFORMATION:

The Gloss White and Flat White will require the same label information as the rest of the line. The Hunter Green will require a "Lead Warning" notice. A new label analysis will be required for each of these colors.

SIMPLIFICATION:

The net result of this release will be the addition of 3 supply codes to the 243-Line. No additional package codes will be required.

PATENT INFORMATION:

No patent complications are known to be involved in the proposed action to specify "Duco" nitrocellulose lacquers in place of certain purchased Lenmar lacquers packaged by Sprayon Products, Inc., under the label Du Pont Spray Enamel.

CONFIDENTIAL INFORMATION:

There is no confidential information associated with this Release Letter.

FORMULA CARDS:

Formula cards for the supply codes (243-64746, 243-64747, and 243-64748) are attached to the Production, Development and Research copies of this letter. The package codes 243-84497, 243-84491 and 243-84495 are being revised to show the "Duco" materials in place of the Lenmar lacquers.

MARSHALL DEVELOPMENT LABORATORY

W. T. Clark
W. T. CLARK

WTC:mtar
3/18/66

APPROVED: *W. T. Clark* DATE: 3/22/66
APPROVED: _____ DATE: _____