

FORMULA SHEET

DUPONT

COLOR CODE DATE 6-27-44 NAME "Duol" Carmine, deep blue shade- 2040 (Exp)
 OBJECT To modify K-1669 by use of slaked lime.
 BASED ON Lab. 1098-17C
 BATCH SIZE-MOLS. 1.0 BATCH No. OF "K" SAMPLE 1098-17C & B

LOS. OR GMS.	MATERIAL	100% WT.	GAL.	G. C.	MANIPULATION	N/
	<u>Diazo</u>					
42.5	Hydrated lime "as is"		180	1500	well slurried with water Add	542
150	"Lithosol" Acid BHA, 100% RMB 360, Lot 64	150				175
45.5	"Lithosol" Acid TK "as is" approx. 98.8%	44.9			Stir to solution at 75-85°F. (Solution should be slightly alkaline to litmus). Cool to 35±3°F. with water and Volume	88
+1250	Ice				Add	57
71	Sodium nitrite "as is" 99.7%	71	290 50	2400 415	dissolved. Dump in	5
84	Maricatic Acid, 100%	84	430	3600	Stir 5-15 min. (Tests: +KI-starch; +CH) Volume of diazo at 35±3°F. Couple	28
	<u>BON-Resin</u>					
93.8	Hydrated lime "as is"		550	4700	well slurried with water Add	542
200	"Lithosol" Acid BON				Stir 20-30 min. to a uniform white slurry. Temp. 70-80°F. Make volume to 1350 11,300 Record pH. (Normal pH 10.8±0.1) Add resin solution prepared as follows:	82
38.5	Caustic soda 100%	38.5	510	4250	Dissolved at a boil and boiled 30 min. to a clear solution.	7
199	K Wood Resin				Stir BON-Resin for 10-15 min. Adjust temp. to 86°F. Couple diazo under surface into BON in 30 min. at 86±2°F. (Tests: +diazo, +BON) Stir at 86°F. to neg. diazo. (±15 min.) Record pH (Normal pH 10.2±0.2) Do not adjust. Add an emulsion of resinous oil in resin soap prepared as follows:	239
0.256	(Caustic soda, 100%)	0.256	3.1	25.7	Boiled 30 min. to dissolve. Stir gradually into	7
2.1	(K Wood Resin)				Dilute to	239
33.3	(Resinous Oil X-1)		12	100		D-5591

PACKAGE
GOAL YIELD

LOS. PER

COST GROUP

TYPE COLOR

SIGNATURE

N37956

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Page 2.



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DATE 6-27-44

NAME "Duol" Carmine, deep blue shade- 2040 (Exp)

OBJECT

BASED ON

BATCH SIZE-MOLS.

BATCH No. OF "K" SAMPLE

LBS. OR GMS.	MATERIAL	100% WT.	GAL.	C. C.	MANIPULATION	N/
					Stir dye-resinous oil slurry 5-10 min. Heat to 160°F. in 30-40 min. Hold at 160°F. for 30 min. Quench to 115°F. Filter, wash Cl-free. Dry at 140°F. Grind as for RT-443-D.	
					<u>Calculated Composition</u> Calcium salt of dyes 61.2% Calcium resinate 31.0 Resinous Oil 3.9 Moisture 3.9 100.0%	

PACKAGE 100 LBS. PER 40 gal. drum COST GROUP 41 TYPE COLOR RT-443-D SIGNATURE M.C. Taber
 GOAL YIELD 649.0 "as is" 623.5 "anhydrous"

Notes on K-2040

K-2040 differs from K-2039 in three ways.

1. It contains "Lithosol" Acid TK in place of 20% of the "Lithosol" Acid RFA (molar ratio).
2. It contains appreciably more calcium rosinate.
3. Optimum coupling temperature was found to be 86°F. Above this there is a loss in strength, and much below 86°F. the coupling rate becomes too slow.

Variable studies, except for the differences noted above, are much the same as for K-2039 and K-1994. The depth of reaction and blueness of tint can be adjusted, if desired, by altering the PTMSA/TOS ratio.

K-2040 corresponds to K-1669 in the same manner that K-2039 (and K-1994) correspond to K-1552.

K. G. TAPER 6-27-44

J. H. COOPER 6-27-44

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