

DIRECT COLORS ON COTTON



Nyanza Color & Chemical Co.

INCORPORATED

MAIN OFFICE

215 WATER STREET

NEW YORK

FACTORIES:

NEWARK, N. J.



ASHLAND, MASS.

BRANCHES:

BOSTON, MASS.

PROVIDENCE, R. I.

PHILADELPHIA, PA.

KNOXVILLE, TENN.

CHICAGO, ILL.

PORTLAND, ORE.



John T. ...

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FACTORY - ASHLAND, MASS.

DISSOLVING THE DYESTUFFS

Stir the dyestuff to a paste with a little cold water, then pour boiling water over the dyestuff, stir vigorously for a few minutes, then add to the dye bath through a fine sieve or cotton cloth. Any undissolved particles of dyestuff are brought into solution by rinsing the filter with hot water. Use soft water if possible.

DYEING METHODS

The direct dyeing colors are applied in a neutral or slightly alkaline boiling bath with an addition of common salt or Glaubersalt.

To improve penetration and leveling especially in pale shades an addition of Immersol T is recommended. The goods are run 10-15 minutes at 100-120 degree Fahr., with 1-2% Immersol T then add dyestuff, slowly raise to the boil, boil 10-15 minutes add salt and continue dyeing until the desired shade is obtained.

The volume of the bath is usually 15 to 20:1.

Recipe A

Prepare the bath with dyestuff and

5-25% Common salt (or 10-50% Glaubersalt Crystals)

Enter the material at about 120 to 150 degree Fahr., slowly raise to the boil and boil 15 to 30 minutes, shut off steam and continue dyeing until the desired shade is obtained.

Recipe B

Prepare the bath with dyestuff and

5-25% Common salt (or 10-50% Glaubersalt Crystals)

1-2% Soda ash

dye as usual for direct colors. After dyeing the goods are rinsed then aftertreated in a fresh bath with

1-2½% Formaldehyde

at 140 degree Fahr., for 20-30 minutes, then rinsed again.

By this aftertreatment the fastness to washing of a number of direct colors is greatly improved.

Recipe C

Prepare the bath as usual for direct colors. After dyeing the goods are rinsed and aftertreated in a fresh bath with

1-3% Bichrome

1-3% Bluestone

3-5% Acetic acid 28%

at a slow boil for 20-30 minutes then rinsed again.

By this aftertreatment the fastness of selected colors to both washing and light is improved.

Recipe D

Prepare the bath as usual for direct colors. After dyeing the goods are rinsed then diazotized in a fresh cold bath containing

1-3 % Sodium Nitrite

3-5 % Sulphuric acid (66° Be.)

or 5-7½% Hydrochloric acid (18°-20° Be.)

working for 20-30 minutes, rinsed well and developed immediately. If the goods are exposed to the air for any length of time between diazotizing and developing, uneven, streaky dyeings will result.

The developing is done in a fresh bath for 20-30 minutes with

1% Meta Toluylene Diamine

1% Soda ash

(For blacks or browns)

1% Beta Naphtol

½% Caustic soda solid

(For reds, blues, or browns)

1% Developer Z











(For yellows and greens)

then thoroughly rinsed and finally soaped hot.











FASTNESS PROPERTIES

The German Method of classification has been followed; when describing fastness to light the numeral 1 is the lowest and 8 the highest degree of fastness. For the other properties 5 is the highest.

These ratings are in comparison with other colors of the same group and have no direct relationship to those of any other class of dyestuffs.





Direct Colors		recipe	Fastness to			Remarks		
			light	washing	discharge ability			
1	1% Nyanza Brilliant Yellow 6GS			A	2	3	1	<i>Used for very clear greenish yellow shades and in combination for bright greens.</i>
2	1% Thiazol Yellow G			A	1	3	2	
3	1% Paranol Fast Yellow 4GL			A	6	3	5	<i>Good light fastness and solubility, suitable for machine dyeing. Fast to alkali, acetic acid and stoving. Discharges white. Leaves celanese unstained.</i>
4	1% Nyanza Fast Yellow 3G Conc.			A	5	3	2	<i>Good light fastness and is fast to acid, alkali and chlorine, leaves silk and wool practically unstained.</i>
5	1% Nyanza Fast Yellow DA			A	4	3	4	<i>Fast to acetic acid but not to alkali.</i>
6	1% Paranol Fast Yellow RL			A	6	3	5	<i>Discharges easily. Good fastness to light, acid and alkalies. Leaves silk and celanese practically unstained.</i>
7	1% Nyanza Fast Yellow FF			A	7	4	2	<i>Good fastness to light, chlorine, washing, perspiration, alkalies and acids, works well in combination.</i>
8	1% Nyanza Brilliant Yellow C			A	5	3	4	<i>Good tinctorial power, fast to acetic acid, and alkali. Works well in combination.</i>
9	2% Nyanza Fast Yellow CL			A	6	4	2	<i>Good fastness to light, chlorine, washing, perspiration, alkalies and acids. Do not stain celanese. Work well in combination.</i>
10	1% Nyanza Fast Yellow PX			A	6	4	2	



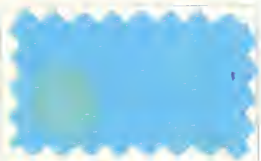







Direct Colors		recipe	Fastness to			Remarks	
			light	washing	discharge ability		
11	1% Nyanza Direct Yellow G Ex.		A	5	3	2	<i>Strong tinctorially, good fastness to chlorine and acetic acid, alkalis redden shade considerably. Does not stain celanese.</i>
12	1% Paranol Fast Orange RL		A	6	3	3	<i>Good fastness to light, acid and alkali. Does not stain celanese.</i>
13	1% Paranol Fast Orange GL		A	7	4	5	<i>Excellent light fastness, good fastness to acetic acid, alkali and stoving, discharges white.</i>
14	1% Paranol Fast Orange EG		A	7	3	3	<i>Excellent light fastness, good fastness to acetic acid, alkali and stoving. Does not stain celanese.</i>
15	1% Nyanza Fast Orange G		A	5	3	2	<i>Strong tinctorially, good fastness to light, chlorine and acetic acid.</i>
16	1% Nyanza Orange TG		A	2	3	4	<i>Bright orange of good coloring power. After-treated with diazotized paranitraniline gives a brown of good fastness to washing.</i>
17	1% Paranol Fast Orange 2RL		A	7	3	2	<i>Excellent fastness to light, fast to alkali and acetic acid. Leaves silk, wool and celanese practically unstained.</i>
18	1% Paranol Fast Orange 3RL		A	6	3	3	
19	1% Nyanza Orange TR		A	2	3	4	<i>Bright orange of good coloring power. After treated with diazotized paranitraniline gives a brown of good fastness to washing.</i>
20	1% Paranol Fast Orange ER		A	6	3	3	<i>Excellent light fastness, good fastness to acetic acid, alkali and stoving. Leaves celanese unstained.</i>

Direct Colors		recipe	Fastness to			Remarks	
		light	washing	discharge ability			
21	1% Nyanza Fast Orange CR		A	4	4	2	<i>Good general fastness. Works well in combination for mode shades. Leaves celanese unstained.</i>
22	1% Nyanza Orange 2R		A	2	2	3	<i>Orange of excellent coloring power. Leaves silk and wool practically unstained.</i>
23	1% Nyanza Fast Orange S		A	5	2	4	<i>Clear bright orange of good fastness to light, acids and alkali.</i>
24	2% Nyanza Fast Scarlet GD		A	4	2	4	<i>Bright level dyeing scarlet of good fastness to acid and alkali.</i>
25	2% Paranol Fast Scarlet 4BL		A	5	2	4	<i>Excellent fastness to light, fast to acid and alkali.</i>
26	2% Nyanza Fast Scarlet 4BD		A	4	2	4	<i>Bright level dyeing scarlet of good fastness to acid and alkali. Leaves silk and wool practically unstained.</i>
27	2% Nyanza Fast Scarlet BD		A	3	2	3	<i>For bright shades of red, useful for half wool and half silk dyeing.</i>
28	1% Nyanza Red 4B Conc.		A	1	3	4	<i>For bright reds of good fastness to alkali and washing.</i>
29	2% Nyanza Fast Red F		A	5	3	5	<i>Good fastness to light, acetic acid and alkali. Leaves celanese unstained. Fastness to washing improved by aftertreatment with fluoride of chrome.</i>
30	2% Nyanza Fast Scarlet 3B		A	3	2	3	<i>For bright shades of red, useful for half wool and half silk dyeing.</i>










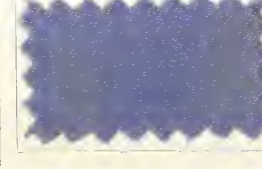
Direct Colors		Fastness to				Remarks	
		recipe	light	washing	discharge ability		
31	2% Paranol Fast Red 8BL		A	7	2	5	<i>Fastest to light direct red. For pinks, reds and combinations fast to light, acetic acid and alkali. Leaves celanese unstained.</i>
32	2% Paranol Fast Red 8BSW		A	7	4	5	<i>Fastest to light red. For pinks, reds and combinations fast to light, acetic acid and alkali. Leaves silk, wool and celanese practically unstained.</i>
33	2% Nyanza Fast Scarlet 8BD		A	3	3	4	<i>Bright level dyeing red of good fastness to acid and alkali.</i>
34	2% Paranol Direct Red SG		A	3	3	5	<i>Good coloring power, fast to acid.</i>
35	2% Nyanza Fast Red 10B		A	1	3	4	<i>Brilliant bluish red of good coloring power, fast to acetic acid and alkali.</i>
36	2% Nyanza Brilliant Red 8B Conc.		A	2	3	5	<i>For pinks and crimsons, fast to acetic acid and alkali, useful for half wool and half silk dyeing. Leaves celanese unstained.</i>
37	2% Nyanza Fast Garnet BA		A	3	3	4	<i>Level dyeing color fast to acetic acid and alkali. Leaves silk and wool practically unstained.</i>
38	1% Nyanza Red 10B		A	1	3	5	<i>Bright claret red, fast to alkali.</i>
39	2% Nyanza Rubine B		A	1	3	5	<i>Fast to alkali, not fast to acids.</i>
40	2% Nyanza Corinth G Conc.		A	1	3	4	


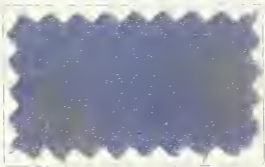





Direct Colors		Fastness to				Remarks	
		recipe	light	washing	discharge ability		
41	2% Paranol Fast Bordeaux 6BL		A	7	3	5	<i>Excellent fastness to light, fast to acid and alkali.</i>
42	2% Nyanza Bordeaux BD Conc.		A	4	3	3	<i>Fast to acetic acid and alkali. Useful for union dyeing. Leaves celanese unstained.</i>
43	1% Nyanza Fast Red OB		A	3	3	5	<i>Very bright pinks or reds, fast to acetic acid and alkali.</i>
44	2% Paranol Fast Rubine B		A	6	2	4	<i>Excellent light fastness. Fast to acid and alkali.</i>
45	1% Nyanza Fast Red O3B		A	3	3	5	<i>Very bright pinks and reds, fast to acetic acid and alkali.</i>
46	1/4% Paranol Fast Pink 2BL		A	7	2	5	<i>Clear pink of excellent fastness to light, fast to acetic acid and alkali.</i>
47	1/8% Nyanza Fast Pink B Extra		A	4	3	5	<i>Clear pink, strong tinctorially, fast to acid, alkali and fairly fast to light.</i>
48	1/8% Nyanza Fast Pink 2G Extra		A	4	3	5	
49	2% Paranol Fast Violet 2RL		A	6	3	5	<i>Bright clear shade of good fastness to light, acid and alkali.</i>
50	2% Nyanza Violet RD		A	5	3	5	<i>Dyes cotton, wool and silk a good union, fast to acid and alkali.</i>











Direct Colors		Fastness to				Remarks	
		recipe	light	washing	discharge ability		
51	2% Nyanza Brilliant Violet RA		A	3	3	4	<i>Bright shade fast to acid and alkali.</i>
52	2% Paranol Fast Violet BL		A	5	2	5	<i>Bright clear shade of good fastness to light, fast to acid and alkali.</i>
53	2% Nyanza Violet B		A	3	2	5	<i>Fast to acetic acid and alkali.</i>
54	2% Paranol Fast Violet BLD		A	5	2	5	<i>Bright shade of good fastness to light, acid and alkali, leaves silk, wool and celanese practically unstained.</i>
55	2% Nyanza Brilliant Violet BA		A	3	3	5	<i>Bright shade fast to acid and alkali.</i>
56	2% Nyanza Blue G Extra		A	2	3	5	<i>For bright blues of good fastness at moderate cost.</i>
57	2% Nyanza Blue 2BX		A	2	2	5	<i>Strong coloring power, fast to acid and alkali.</i>
58	2% Nyanza Blue RW		A	2	2	5	<i>Bright medium blue, fast to acid and alkali. Light fastness greatly improved by aftertreatment with bluestone.</i>
59	2% Nyanza Chrome Blue R		A	2	3	5	<i>Good fastness to washing, acid and alkali. Fastness to washing and light improved by aftertreatment with bichrome.</i>
60	3% Nyanza Fast Blue BA		A	4	2	4	<i>Good fastness to light, acid and alkali.</i>

Direct Colors		recipe	Fastness to			Remarks		
			light	washing	discharge ability			
61	$\frac{1}{4}\%$ Nyanza Sky Blue 4B			A	2	3	5	Bright clear shade, fast to acid and alkali.
62	1% Nyanza Sky Blue 6B			A	2	2	5	Very clear bright shade, fast to acid and alkali. Light fastness can be greatly improved by aftertreating with bluestone.
63	$\frac{1}{4}\%$ Nyanza Brilliant Blue 12B			A	1	2	5	Very brilliant clear shade, fast to acid, not fast to alkali. Dyed with salt and acetic acid.
64	2% Paranol Fast Blue 8G Conc.			A	6	2	4	
65	2% Paranol Fast Blue 4GL Extra			A	6	2	5	
66	2% Paranol Fast Blue 2R			A	5	2	5	Excellent fastness to light, acid and alkali.
67	2% Paranol Fast Blue FF			A	5	2	5	
68	2% Nyagene Black BH Conc.			A	2	2	5	Used chiefly for dark blues and navies or developed for blacks. Leaves silk, wool and celanese practically unstained.
69	2% Nyagene Black F			A	2	4	5	Used chiefly because of its good fastness to washing.
70	3% Nyanza Chrome Blue R (aftertreated)			C	4	4	4	Good fastness to washing, acid and alkali. Fastness to washing and light improved by aftertreatment with bichrome.

Direct Colors		recipe	Fastness to			Remarks	
			light	washing	discharge ability		
71	3% Nyanza Fast Blue R Conc.		A	2	3	5	<i>Used chiefly for dark blues and navies of moderate cost.</i>
72	2% Nyanza Green 3BC		A	2	3	5	<i>Good coloring power, fast to acetic acid and alkali.</i>
73	2% Nyanza Green B		A	2	3	5	
74	2% Paranol Fast Green B		A	5	2	5	<i>Excellent fastness to light, acid and alkali.</i>
75	2% Nyanza Catechine 3GD		A	2	3	4	<i>Level dyeing color fast to acetic acid and alkali.</i>
76	2% Nyanza Fast Orange OBN		A	3	3	4	<i>Dyes cotton and silk a good union from alkaline bath.</i>
77	2% Nyanza Brown GN		A	2	2	4	<i>Strong coloring power, for tans and browns fast to alkali.</i>
78	2% Nyanza Catechine N		A	3	3	4	<i>Level dyeing color fast to acetic acid and alkali.</i>
79	2% Nyanza Catechine G		A	3	3	4	
80	2% Nyanza Chrome Brown R (aftertreated)		C	4	4	4	<i>Excellent fastness to washing, cross dyeing, light, acid and alkali.</i>

Direct Colors		recipe	Fastness to			Remarks	
			light	washing	discharge ability		
81	2% Nyanza Chrome Brown G (aftertreated)		C	4	4	4	<i>Excellent fastness to washing, cross dyeing, light, acid and alkali.</i>
82	2% Nyanza Chrome Brown D (aftertreated)		C	4	4	4	
83	2% Nyanza Fast Catechine BC		A	3	3	4	<i>Good fastness to light and washing. Fast to acid and alkali. Dyes good union on cotton, wool and silk.</i>
34	2% Nyanza Fast Brown B		A	5	3	4	<i>Good fastness to light and washing, fast to acid and alkali.</i>
85	2% Nyanza Catechine BD		A	3	3	4	<i>Level dyeing color fast to acetic acid and alkali.</i>
86	2% Paranol Fast Brown 4R		A	6	2	4	<i>Excellent fastness to light, acid and alkali.</i>
87	2% Nyanza Fast Brown M		A	3	2	4	<i>Fast to acetic acid and alkali.</i>
88	1/2% Nyagene Black D		A	3	3	4	<i>Level dyeing color used chiefly for greys and compound shades. Good fastness to light, acetic acid and alkali.</i>
89	1/2% Nyanza Fast Black LD		A	3	3	4	<i>Level dyeing color used chiefly for greys and compound shades. Good fastness to light, acetic acid and alkali.</i>
90	1/2% Paranol Fast Grey VL		A	7	4	4	<i>Excellent fastness to light, acid and alkali. Leaves celanese unstained.</i>

Direct Colors		recipe	Fastness to			Remarks	
			light	washing	discharge ability		
91	$\frac{1}{2}\%$ Nyanza Grey G		A	3	4	+	<i>Good fastness to washing, acetic acid and alkali.</i>
92	$\frac{1}{2}\%$ Paranol Fast Grey BL		A	7	4	4	<i>Excellent fastness to light, acid and alkali. Leaves celanese unstained.</i>
93	$\frac{1}{2}\%$ Paranol Fast Grey GL		A	7	4	4	
94	6% Nyanza Black RG		A	4	3	4	<i>Generally used for blacks, fast to alkali. Fastness to washing improved by aftertreating with formaldehyde.</i>
95	6% Nyanza Black RW Conc.		A	4	3	4	
96	7% Nyanza Fast Black FOR (aftertreated)		B	5	5	5	<i>Excellent fastness to washing, light, acid and alkali. Leaves celanese unstained.</i>
97	6% Nyanza Black FF		A	4	3	4	<i>Generally used for blacks, fast to alkali. Fastness to washing improved by aftertreating with formaldehyde.</i>
98							
99							
100							

Developed Colors		recipe	Fastness to			Remarks	
			light	washing	discharge ability		
101	1% Nyagene Fast Yellow 2G Developer Z		D	6	5	2	Excellent fastness to light, washing, acid, alkali and cross-dyeing.
102	1% Nyagene Orange R Beta-Naphtol		D	4	4	3	Bright orange shades fast to washing, acid, alkali and cross-dyeing.
103	2% Nyagene Orange 2G Beta-Naphtol		D	6	5	5	Excellent fastness to light, washing, acid, alkali and cross-dyeing.
104	2% Nyagene Brown 6G M-Toluylene Diamine		D	5	5	4	Good fastness to washing, acid, alkali and cross-dyeing.
105	1% Nyagene Orange 4RD Beta-Naphtol		D	5	5	5	Excellent fastness to light, washing, acid, alkali and cross-dyeing.
106	2% Nyagene Scarlet RD Beta-Naphtol		D	4	5	5	Fast to washing, acid and cross-dyeing.
107	1% Nyagene Brilliant Scarlet 2BL Ex. Conc. Beta-Naphtol		D	4	4	4	Great coloring power, good fastness to washing, acid and cross-dyeing.
108	2% Nyagene Red 5BL Beta-Naphtol		D	4	5	4	Excellent fastness to light and washing. Fast to acid, alkali and cross-dyeing.
109	2% Nyagene Red 6BD Beta-Naphtol		D	4	4	5	Fast to washing, acid and cross-dyeing.
110	6% Primuline Conc. Beta-Naphtol		D	4	5	2	Excellent fastness to washing and cross-dyeing.

Developed Colors		recipe	Fastness to			Remarks
			light	washing	discharge ability	
111 1/8% Nyagene Pink B Ex. <i>Beta-Naphtol</i>		D	4	5	5	<i>Fast to washing, acid and cross-dyeing.</i>
112 2% Nyagene Fast Bordeuax BL <i>Beta-Naphtol</i>		D	5	5	5	<i>Excellent fastness to light, washing, acid, alkali and cross-dyeing.</i>
113 2% Nyagene Bordeuax 7B <i>Beta-Naphtol</i>		D	4	5	4	<i>Good fastness to washing, acid, alkali, and cross-dyeing.</i>
114 2% Nyagene Rubine B <i>Beta-Naphtol</i>		D	4	4	4	<i>Fast to washing, acid and cross-dyeing.</i>
115 2% Nyagene Violet BL <i>Beta-Naphtol</i>		D	4	5	5	<i>Excellent fastness to light, washing, acid, alkali and cross-dyeing.</i>
116 2% Nyagene Blue 4R <i>Beta-Naphtol</i>		D	4	5	5	<i>Good fastness to light washing, acid, alkali and cross-dyeing.</i>
117 2% Nyagene Blue 2RA <i>Beta-Naphtol</i>		D	4	5	5	<i>Good fastness to light washing, acid, alkali and cross-dyeing.</i>
118 2% Nyagene Blue B <i>Beta-Naphtol</i>		D	5	4	5	<i>Good fastness to light, washing, acid, alkali, and cross-dyeing.</i>
119 2% Nyagene Blue 2B <i>Beta-Naphtol</i>		D	5	4	5	<i>Excellent fastness to light, washing, acid, alkali and cross-dyeing.</i>
120 2% Nyagene Blue 4GL <i>Beta-Naphtol</i>		D	6	4	5	<i>Excellent fastness to light, washing, acid, alkali and cross-dyeing.</i>



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