

## Your First Source for Colorants & Chemicals



Dye Name	Affinity	H.T. Stability	Discharge	Dead Cotton Coverage	Light Fastness Xenon	Wash Test #1a Alt.* Cotton Stain	Wash Test #2a Alt.* Cotton Stain	Acid Perspiration Alt.* Cotton Stain	Water Bleed Alt.* Cotton Stain	Crock Test Wet * Dry
1% Soramine Yellow 4GL	A	P	Neutral 5 Alkaline 4	G	Cotton 4 Viscose 4~5	Untreated 3 * 2~3 Treated 3~4 * 3	Untreated 1~2 * 1~2 Treated 2 * 2	Untreated 1~2 * 1~2 Treated 1~2 * 1~2	Untreated 2 * 1~2 Treated 5 * 4~5	Untreated 4 * 5 Treated 3~4 * 5
2% Soramine Yellow EFC	B	G	Neutral 1 Alkaline 1	G/M	Cotton 6~7 Viscose 6~7	Untreated 3~4 * 3~4 Treated 4~5 * 4~5	Untreated 2~3 * 2~3 Treated 4 * 4	Untreated 3~4 * 3~4 Treated 4~5 * 4~5	Untreated 4 * 3 Treated 5 * 5	Untreated 4 * 5 Treated 4~5 * 5
1% Soramine Orange 2GL 200%	B	G	Neutral 4 Alkaline 2	M	Cotton 5~6 Viscose 5~6	Untreated 3~4 * 3 Treated 4 * 4	Untreated 2~3 * 2 Treated 3~4 * 3~4	Untreated 3~4 * 2 Treated 4~5 * 5	Untreated 3~4 * 2 Treated 4~5 * 5	Untreated 4 * 5 Treated 4~5 * 5
1.5% Soramine Scarlet 4BS Y Crude	C	P	Neutral 4 Alkaline 4	M	Cotton 2~3 Viscose 2~3	Untreated 4 * 2 Treated 4 Y * 3	Untreated 3 * 1~2 Treated 3~4 Y * 2	Untreated 4 * 3~4 Treated 4~5 B * 4~5	Untreated 4 * 2 Treated 5 * 4~5	Untreated 3 * 5 Treated 3 * 4~5
1.5% Soramine Scarlet 4SWN	B	P	Neutral 4~5 Alkaline 3	P	Cotton 2 Viscose 3	Untreated 4 * 3 Treated 4~5 * 4	Untreated 3 * 2 Treated 4 B * 3	Untreated 4~5 * 4 Treated 4~5 * 5	Untreated 4~5 * 4 Treated 4~5 * 5	Untreated 4 * 5 Treated 4 * 5
2% Soramine Red 8BSA	B	P	Neutral 4 Alkaline 4	M	Cotton 2 Viscose 2	Untreated 4 * 2~3 Treated 4~5 * 3~4	Untreated 3 * 2 Treated 3~4 * 2~3	Untreated 4 * 3 Treated 5 * 4~5	Untreated 3~4 * 2 Treated 5 * 4~5	Untreated 4 * 5 Treated 4 * 5

First Source Worldwide, LLC  
 Corporate Offices  
 1524 S. Commercial Street  
 Neenah, WI 54956-4802  
 Phone (920) 886-0444 Fax (920) 886-1424

First Source Worldwide, LLC  
 Plant and Lab Facilities  
 11725 W. Fairview Avenue  
 Milwaukee, WI 53226-3948  
 Phone (414) 302-5833 Fax (414) 302-5894

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2% Soramine Red 8BL	A	P	Neutral 5 Alkaline 5	L	Cotton 4 Viscose 4	Untreated 2~3 * 1~2 Treated 3 * 1~2	Untreated 1~2 * 1~2 Treated 1~2 * 1~2	Untreated 3 * 1~2 Treated 4 * 3~4	Untreated 2~3 * 1 Treated 5 * 4~5	Untreated 3~4 * 5 Treated 3 * 5
2% Soramine Bordeaux 6B 200%	B	G	Neutral - Alkaline -	M	Cotton 3 Viscose 3~4	Untreated - * - Treated - * -	Untreated 2 * - Treated 3~4 * -	Untreated 4 * - Treated ~ * 3	Untreated - * - Treated - * -	Untreated ~4 * 5 Treated - * -
1% Soramine Violet B 200%	A	G	Neutral 5 Alkaline 5	L	Cotton 1~2 Viscose 2	Untreated 3~4 * 2 Treated 4 * 2	Untreated 3~4 * 1 Treated 3~4 * 1~2	Untreated 3~4 * 3 Treated 4~5 * 4	Untreated 2 * 1~2 Treated 5 * 4~5	Untreated 3~4 * 5 Treated 3~4 * 4~5
2% Soramine Blue 2RL	B	G	Neutral 2~3 Alkaline 2~3	L	Cotton 5~6 Viscose 6~7	Untreated 3~4 * 2~3 Treated 4~5 * 3	Untreated 2 * 2 Treated 4 * 3	Untreated 4 * 3 Treated 4~5 * 5	Untreated 2~3 * 1~2 Treated 5 * 5	Untreated 4~5 * 5 Treated 4~5 * 5
1% Soramine Bond Blue A	A	G	Neutral 2 Alkaline 2	M	Cotton 5~6 Viscose 5~6	Untreated 3~4 * 3 Treated 4~5 * 3~4	Untreated 2 * 2~3 Treated 4 * 3	Untreated 3 * 2~3 Treated 5 * 5	Untreated 2 * 2 Treated 5 * 5	Untreated 3 * 5 Treated 3 * 5
2.5% Soramine Blue 8GL Crude	B	G	Neutral 4 Alkaline 2	M	Cotton 4 Viscose 2	Untreated 2~3 * 3~4 Treated 4 * 3~4	Untreated 1~2 * 3~4 Treated 3 * 3~4	Untreated 3 G * 2~3 Treated 3 G * 5	Untreated 2~3 * 2 Treated 4~5 G * 5	Untreated 4~5 * 5 Treated 4 * 5

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4% Soramine Black OB	B	G	Neutral 4 Alkaline 4	L	Cotton 4 Viscose 5	Untreated 4 * 1~2 Treated 4~5 * 3	Untreated 2 * 1~2 Treated 3~4 * 2	Untreated 3b * 5 Treated 4b * 4~5	Untreated 3~4 * 1~2 Treated 5 * 5	Untreated 3~4 * 5 Treated 3~4 * 5
4% Soramine Black BH-NB	A	F	Neutral - Alkaline -	G	Cotton 4~5 Viscose 5	Untreated - * - Treated - * -	Untreated 4 * - Treated 4~5 * 1	Untreated 4 * 1~2 Treated 4~5 * 4	Untreated - * - Treated - * -	Untreated 3 * 5 Treated -
4% Soramine Black GX-NB 150%	B	G	Neutral 5 Alkaline 4	M	Cotton 3 Viscose 3~4	Untreated 3~4 * 1~2 Treated 4 * 2	Untreated 2~3 * 1~2 Treated 3 * 1~2	Untreated 4 * 3 Treated 5 * 4~5	Untreated 3 * 1~2 Treated 5 * 4~5	Untreated 2~3 * 4~5 Treated 3 * 4~5

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## Fastness Tests

### Affinity (SDC\*) Group

#### GROUP A

- Slow striking; excellent leveling agent properties
- Usually require larger amounts of salt for exhaustion
- Prolonged boiling will relive unsatisfactory dyeing more easily than dyes in the other two groups tend to “feed on” the cooling bath.

#### GROUP B

- Medium rate of strike; fair to good leveling properties
- Moderate amounts of salt required; salt controllable
- Sensitive to excess salt concentrations and temperature variations.

#### GROUP C

- Due to their relatively rapid strike, dyes in this group are more salt sensitive and require very little or no electrolyte light shades for uniform exhaustion and level of dyeing.
- Temperature is controllable

\*SDC — Society of Dyers & Colorists

### High Temperature Stability

Cotton dyeings were made at 250°F (120°C) in a bath containing polyester auxiliaries and the direct dye, but without disperse dyes. The resultant dyeings were evaluated against standard atmospheric cotton dyeings for color yield and alteration of shade.

VG = Very Good, G = Good, L = Limited, P = Poor

### Discharge

- 5 — White discharge
- 4 — Nearly white discharge
- 3 — Suitable for printed color fabrics, but not suitable for white
- 2 — Unsuitable for white or colored effects
- 1 — Not dischargeable

### Neutral Discharge Paste

- 60% Textile Gum
- 20% Sodium Sulfoxylate Formaldehyde
- 20% Water

### Alkaline Discharge Paste

- 60% Textile Gum
- 10% Potassium Carbonate
- 20% Sodium Sulfoxylate Formaldehyde
- 20% Water

### Light Fastness

All fastness tests were conducted in accordance with AATCC Standard Methods where acceptable. Ratings for shade alteration were made according to the AATCC Grey Scales.

### Dead Cotton Coverage

Dyeings were made on material containing large amounts of dead cotton using the standard atmospheric dyeing method. Dyeings were rated for good, moderate or low coverage of dead cotton.

G = Good, M = Moderate, L = Low

### Xenon

AATCC Test Method 16E-1987: Colorfastness to light, water-cooled xenon arc lamp—continuous light. Tests were conducted on untreated fabric.

Hours	Ratings	Class
320	8	Outstanding
160	7	Excellent
80	6	Very Good
40	5	Good
20	4	Fairly Good
10	3	Fair
5	2	Poor
<5	1	Very Poor

### Wash Test #1A and #2A

AATCC Test Method 61-1989, Test #1A and #2A: Colorfastness to laundering—home and commercial; Accelerated.

### Acid Perspiration

AATCC Test Method 15-1985: Colorfastness to water to perspiration.

### Water Bleed

AATCC Test Method 107-1986: Colorfastness to water.

### Crock Test

AATCC Crockmeter Method; Test Method 8-1988: Colorfastness to Crocking.

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## Fastness Ratings

### Alteration of Shade

#### Cotton Staining

- 5 — No staining
- 4 — Very light staining
- 3 — Noticeable staining
- 2 — Considerable staining
- 1 — Heavy staining

#### Other Terms

- B — Bluer
- G — Greener
- R — Redder
- Y — Yellower

### Application Procedures

#### Pretreatment

Goods that are dyed with direct or developed dyes should have maximum absorption and be thoroughly pre-wet for high quality dyeings. For the most economical use of dyes, prescouring, bleaching and mercerizing is recommended. Mercerizing increases the brilliance and depth of color. Pretreated goods should be thoroughly rinsed free of any residual acid, alkali or chlorine before dyeing.

- 5 — Shade unaltered
- 4 — Very slightly altered
- 3 — Noticably altered
- 2 — Distinctly altered
- 1 — Considerably altered

### Atmospheric Dyeing Procedures

Prepare bath at 120°F (50°C) with:  
 0.25 g/l TSPP (or 0.10 g/l Soda Ash, when dyeing cotton) to pH 7.5-8.5  
 X% direct dye(s) pre-dissolved at 212°F (100°C)  
 Run 5 minutes at 120°F (50°C)  
 Raise to 212°F (100°C) over 30 minutes  
 Run 10 minutes at 212°F (100°C)  
 Add in three portions, Common or Glauber's salt (see chart)  
 Run 30-45 minutes in a cooling bath (steam off) for good exhaust.  
 Rinse.  
 After-treat if necessary.

### High Temperature Dyeing Procedures

When dyeing polyester/cotton blended fibers:  
 Prepare bath at 120°F (50°C)  
 Adjust pH to 5.5 using MSP/Acetic Acid.  
 X% direct dye(s) pre-dissolved at 212°F (100°C)  
 Pre-dispersed disperse and direct dye(s) at 120°F (50°C) maximum  
 Raise temperature to 250°-265°F (120°-130°C)  
 Run 30-45 minutes  
 Cool to 180°F (82°C)  
 Add Glauber's Salt to exhaust dye (see chart)  
 Raise to 200°F (93°C) and run 30 minutes.  
 Rinse cold.  
 After-treat if desired.

### Amount of Common or Glauber's Salt

% Direct Dye	Salt G/l	% At Ratio of		
		10:1	20:1	40:1
0.01-0.25	2.5	2.5	5.0	10.0
0.26-0.50	5.0	5.0	10.0	20.0
0.51-1.00	7.5	7.5	15.0	30.0
1.01-2.00	10.0	10.0	20.0	40.0
2.01-3.00	12.5	12.5	25.0	50.0
3.01-4.00	15.0	15.0	30.0	60.0
4.01-5.00	17.5	17.5	35.0	70.0
5.01-Above	20.0	20.0	40.0	80.0

#### Disclaimer:

Seller assumes no obligation or liability, whether in contract, tort, negligence, strict liability or misrepresentation for any advice or assistance given Buyer in relation to the merchandise, such advice or assistance, written or oral, being given without charge and accepted by Buyer's request and at his sole and exclusive risk. Samples will be made available at Buyer's request. Buyers are urged to make their own tests of any product described herein or of any proposed application with respect to which advice or assistance from Seller may be sought.

The fastness properties of the enclosed dyeings are dependent upon the conditions to which they are subjected, and may vary considerably if the dyed fabric is treated with additional chemicals such as fixing or finishing agents. Consequently, the dyed/finished fabric should be tested to assure that the fastness properties meet the necessary requirement. Not all shades can be produced with desired fastness properties. This point should be carefully considered before putting shades into production. The information given is based on work done in our laboratories; consideration should be given to possible variations under local conditions.

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