

How to Exhaust-Dye Cotton Using Orco Reactive R-Series™ Dyes

1. Prepare cotton goods so they have good absorbency, wet-out, and contain no residual chlorine, peroxide, or alkali.
2. At 120°F(50°C) add:

1.0%	Orconol CHSA Conc™ on weight of fabric(owf).
X g/L(oz/gal)	Common Salt* or Glauber's salt as prescribed on chart shown below
0.067 oz/gal(0.5g/L)	Sodium Hexametaphosphate,
X % owf	R-Series™ reactive dye properly prepared.
<u>% owf dyes</u>	<u>oz/gal(g/L)</u>
to 0.75	2.7-6.6 (20-50)
0.75-2.00	10 (75)
2.01-4.00	13.3 (100)
4.01+	13.3 (100)

3. Run for ten minutes.
4. Bring dyebath to 140°F(60°C) at a rate of 1-3°F/minute.
5. Add prescribed amount of soda ash as shown in chart below. Soda ash may be added in portions to promote improved leveling. Run for 10-20 minutes.
6. Add prescribed amount of Caustic 50% as shown in chart below. This will maximize yield of the dye. Run for 30-40 minutes.

<u>% owf dyes</u>	<u>Soda Ash oz/gal(g/L)</u>		<u>Caustic 50% oz/gal(g/L)</u>	
	<u>10:1</u>	<u>20:1</u>	<u>10:1</u>	<u>20:1</u>
to 0.75	0.67(5)	0.67(5)	----	---
0.75-2.00	0.67(5)	0.67(5)	.13(1.0)	.07(0.5)
2.01-4.00	0.67(5)	0.67(5)	.27(2.0)	.13(1.0)
4.01+	0.67(5)	0.67(5)	.40(3.0)	.20(1.5)

7. After dyeing, overflow rinse until clear using cold water. Drop bath.
8. In new bath at 100°F-120°F(38°C-50°C), neutralize with 1 g/L(0.133oz/gal) Acetic Acid 56% or more if necessary for neutralization of residual alkali for 15 minutes. Drop bath.
9. Soap at boil using 0.25% owf **Orconol CHSA Conc™** for 10-15 minutes.
10. Warm rinse at 140°-175°F(60°-80°C). Cold rinse.

* For shades using **Orco Reactive Blue RW Special™** use Glauber's salt in place of common salt and use ½ the amount. Glauber's Salt is recommended in jet-dyeing machines as common salt may cause pitting in machinery.

** For shades using **Orco Reactive Turquoise RP™**, raise dyebath temperature to 165°F(75°C).