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

1. Prepare and prescour cotton goods. Goods should have good absorbency, wet-out, and contain no residual chlorine, peroxide, or alkali.
2. In a bath 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
1.0% owf	**Orcotol MN Powder™**(for closed machines such as jets)
X % owf	**I-Series™** reactive dye properly prepared.

X % owf Dye	*oz/gal(g/L) Salt
to 0.50	5 (38)
0.51-1.00	7 (53)
1.01-2.00	9 (68)
2.01-4.00	12 (91)
4.01+	13 (98)

3. Run for ten minutes.
4. Bring dyebath to 175°F(80°C) at a rate of 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 dye leveling.
6. Run for 10-20 minutes.
7. Add prescribed amount of Caustic 50% as shown in chart below. This will maximize yield of the dye.
8. Run for 30-40 minutes.

%owf dyes	Soda Ash oz/gal(g/L)		Caustic50% oz/gal(g/L)	
	10:1	20:1	10:1	20:1
to 0.75	0.8(6)	0.8(6)	.20(1.5)	.20(1.5)
0.75-2.00	0.8(6)	0.8(6)	.20(1.5)	.20(1.5)
2.01-4.00	1.1(8)	1.1(8)	.27(2.0)	.27(2.0)
4.01+	1.1(8)	1.1(8)	.27(2.0)	.27(2.0)

9. After dyeing, overflow rinse until clear using cold water. Drop bath.
10. In a 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.
11. Soap at the boil using 0.25% owf **Orcopon KP™** for 10-15 minutes.
12. Warm rinse at 140°F-175°F(60°C-80°C).
13. Cold rinse.

Note: Glauber's Salt is recommended in jet-dyeing machines as common salt may cause pitting in machinery.

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