

How to Dye Nylon/Cellulosic Blends Using Acid & Direct Dyes in a One-Bath/Two-Step Process

This procedure is typical for cross-dyeing (each fiber has a different shade). It is important that the acid dyes are carefully selected for those which stain the cellulose the least and for direct dyes which do not stain the nylon. If a union dyeing (fibers have same shade) is desired, a one-bath/one-step procedure is sometimes possible with the use of **Orcolan Neutral™** acid dyes and **Orco Direct™** dyes. If the substrate being processed is rayon, do not exceed a pH of 9 as it will cause saponification of the fiber.

1. Prepare goods as necessary.
2. In a bath at 105°F(41°C), add:
 - 1.0 % owg **Orconol CHSA Conc™**
 - X % owg **Orco Nylon Resist AP™** as necessary
3. Bring pH to 7-8 with Tetrasodium Pyrophosphate(TSPP) or soda ash and run for 10 minutes.
4. Add the required amount of **Orco™** Acid dye properly prepared
5. Raise the temperature to 205°F(96°C) and run for one hour.
6. At 30 minutes into this dyeing cycle, acid dyes may be exhausted by the addition of acetic acid.
7. Reduce the bath temperature to 140°F(60°C) and adjust pH to 7-8 using TSPP.
8. Add required amount of **Orco™** Direct dye properly prepared.
9. Circulate for 10 minutes.
10. Raise dye bath temperature to 165-175°F(74-79°C).
11. Add 5-20% owg Common or Glauber's salt over 30 minutes.
12. Run additional 30 minutes.
13. Drop bath and rinse well.
14. Finish goods as necessary.