

## How to Scour & Bleach Cellulosic/Spandex<sup>®</sup> Blends

Typically, a cellulosic blend will have to be scoured and bleached to remove oils, lubricants and general soil from the blend itself, and natural contaminants from the cellulosic portion of the blend. When rayon is present in the blend, do not exceed a pH of 9.0 in any procedure. This will prevent saponification of the rayon fiber. It is important not to exceed the boil in any procedure using Spandex<sup>®</sup> as the physical properties may deteriorate. Also, do not use chlorine in any bleaching procedures with Spandex<sup>®</sup> as it will cause yellowing and possible degradation of the fiber.

1. Enter the goods into a bath at 100°F(38°C) and add:
  - 0.30 oz/gal(2.25g/L ) **Orcoterge ALK-N Conc™**
  - 0.40 oz/gal(3.00g/L) Caustic Soda 50% solution
  - 0.50 oz/gal(3.75g/L) Sodium Hydrosulfite( use **Orcolite NF Conc™** if Sodium Hydrosulfite not desirable)
2. Raise temperature to 190-195°F(88-90°C) over 40 minutes and run for 1½-2 hours.
3. Overflow rinse until clear and bath is at 110°F(43°C).
4. Adjust pH to 7 with acetic acid 56% and run for 10 minutes.
5. In a new bleaching bath, add 1.25 oz/gal(9.4 g/L) of hydrogen peroxide 35% and adjust pH to 9.5 using sodium silicate. If rayon is part of the blend, do not exceed a pH of 9 or saponification of the rayon may result.
6. Slowly raise temperature to 180°F(82°C) and run for one hour.
7. Rinse until clear and adjust pH to 7.

If desired, an optical brightener may be added during the reduction bleach but compatibility should be checked by reviewing our line of **Orco Synthrowite™** optical brighteners or contacting your ORCO<sup>®</sup> technical representative.

Refer to technical bulletin on **Orco Synthrowite C-ALKS™** for information on further “whitening” of the cotton.