

## How to Peroxide(Oxidation) Bleach Wool/Nylon Blends

Although degradation of nylon is usually a concern when using peroxide, the typical amount of nylon in a wool/nylon blend is only 20-30%. Because of this, the standard *Wool Peroxide Bleach* procedure may be used in most applications. Even if there is slight degradation of the nylon, the tensile strength is still stronger than the wool it is blended with and will cause a negligible overall affect on the tensile strength of the fabric.

In addition to full whites with or without optical brighteners, it is sometimes desirable to reduce the natural coloration of wool for the dyeing of pastel and brighter yellow shades. This is sometimes achieved on a batch basis over night or with elevated temperatures in a more limited time. The following procedure is a starting point and may be modified for various equipment and degrees of whitening necessary:

- Immerse goods into bath containing the following chemicals:
  - 7 lbs Sodium Silicate
  - 2 lbs Soda Ash(Do not exceed pH of 9.5)
  - 1 lbs **Orcoterge ALK-N Conc™**
  - 23 lbs Hydrogen Peroxide 35%(2.25 gal.)
  - 100 gal
- Raise temperature to 120-130°F(49-54°C) and shut off the heat or energy source(i.e. steam)
- Allow to set over night at ambient conditions being careful to ensure that the goods are completely immersed, or in the case of pad batch, that the roll is covered with a plastic wrap in such a way that neither the edges or the outside "dry out."
- After examining the goods, scour off at 100-120°F(38-49°C) in the beam, jig, beck or continuous scour train.
- Re-acidify goods to pH of 4.5-5.5 with either acetic or sulfuric acid.
- By raising the temperature to 120-130°F(49-54°C) and maintaining this temperature, the bleaching time may be reduced to 1 ½ to 3 hours time. All else, including chemical concentration and the scouring-off procedure, remain the same.