How to Hydrogen Peroxide Bleach Nylon/Cellulosic Blends with Continuous Method

When using Hydrogen Peroxide with cellulosic blends containing nylon, it is important to keep in mind that hydrogen peroxide, when used in high concentrations at high temperature, can degrade nylon. The procedure should be evaluated first on a laboratory basis to determine if the procedure is appropriate for the fabric under consideration before running in actual full-scale production.

The first phase is to remove any sizing agents from the goods:

- Set wet pickup to 70% and run goods through 140°F(60°C) bath containing a proper cellulosic enzyme and 0.15% owb **Orconol CHSA Conc™**.
- Let rolls set for a minimum of eight hours.
- Wash goods through a rope washer with water at 180°F(82°C) and dwell time of 15 seconds. This bath should contain no detergents or surfactants.
- Pass goods through second washer at 150°F(65°C) with dwell time of 15 seconds.

The second phase is to scour the goods:

Do not exceed a pH of 9.0 when scouring rayon as the rayon will begin to saponify.

- Saturate goods in a 125°F(53°C) caustic solution containing 4.0% owf sodium hydroxide and 0.25% owf **Orcoterge ALK-N Conc™**.
- Hold goods in J-Box at 200°F-212°F(93°C-100°C) for 1 hour and 45 minutes.
- Wash goods through two water baths; first at 160°F(71°C) for 15 seconds then 110°F(43°C) for 15 seconds.

The third phase is the hydrogen peroxide bleaching bath:

- 1. Pass goods through bath containing 1.7 oz/gal(12.5g/L) hydrogen peroxide and 2.66oz/gal(20 g/L) sodium silicate @ 42 °Be and hold in a J-Box for one hour at 210°F(99°C).
- Wash goods through two water baths; first at 160°F(71°C) for 15 seconds then 110°F(43°C) for 15 seconds.

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