

How to Resin-Finish Polyester

In general, polyester is resin-finished for reasons of hand and shrink resistance especially when used with cotton in polyester/cotton blends.

- **Orco Padding Resin FGT™** Durable/for continuous operations
- **Orcorez G-NC™** Durable/pre-catalyzed)
- **Orcoset Resin CN™** Non-durable/Non-ionic/PVA-H type
- **Orco Polyrez 550™** for minimal chalking

Orco Padding Resin FGT™

For continuous operations, **Orco Padding Resin FGT™** is recommended. **Orco Padding Resin FGT™** is a durable, versatile, self cross-linking additive for special applications requiring dimensional stability. It can also be used in combination with acrylic resins for added stability. It is used as an additive to improve washfastness of pigment print and pad operations, and as a resin finishing agent for cotton, rayon, and polyester/cotton blends. It provides shrinkage control on cellulose and cellulose/synthetic blends and is a hand-building additive for all fibers.

Dry cleaning fastness may also be improved on many pigment applications by the use of 0.25 to 2.0 oz./gal along with a minimum cure of 275-285°F(135-140°C) for 60 seconds.

Orcorez G-NC™

Orcorez G-NC™ is a pre-catalyzed gloxal-type resin applicable to cellulose and synthetic/cellulosic blends such as polyester/cotton. This product offers good shrinkage control and excellent durable press characteristics.

1. Make sure goods are scoured clean of other processing chemicals and show a neutral pH.
2. In a padding bath at 130°F(54°C) at about ½ the amount of total final bath volume, add the following in order shown:
 1. 0.1-0.3 % owb **Orcowet PA™** (pre-diluted)
 2. 10-20 % owb **Orcorez G-NC™**
 3. 2-4 % owb **Orcosoft NP™**
4. Stir the auxiliaries well while bulking bath to 100%.
5. Maintain bath temperature of 75-85°F(24-29°C)
6. Pad goods at 60-70% pickup for synthetic/cellulosic blends and 80-100% for 100% cellulose.
7. Dry and then cure at 300°F(149°C) minimum for 1 ½ minutes.

Orcoset Resin CN™

Orcoset Resin CN™ is a non-durable, non-ionic polyvinyl acetate homopolymer developed for the textile industry to produce maximum stiffness to cotton, synthetics and blends. The dry-rate has been modified to prevent excessive build-up on pad rolls, especially in a three-roll stock. **Orcoset Resin CN™** may be used alone or compounded with other finishing agents such as optical brighteners, starches, or corresponding catalysts.

Orcoset Resin CN™ may be used at concentrations ranging from 2.0% owb for lightweight fabrics to 10.0% owb for moderately firm hands. For extra stiff hands, as much as 15.0% owb to 20.0% owb weights is frequently used.

Orco Polyrez 550™

Orco Polyrez 550™ is a water dispersible polyester resin for use in textile finishing for hand control on heavy dark shades where "chalking" is encountered with the typical polyvinyl acetate resin emulsions and can be applied to synthetics and natural fibers.

Dependent on properties desired, **Orco Polyrez 550™** should be applied at room temperature at a level of 3 - 10 oz/gal. Drying temperature of 250°-280°F(121-133°C) is usually sufficient.