

How to Treat Polyester with a Water Repellent

Orco Repel Z-L™

Orco Repel Z-L™ is a non-durable, economical wax emulsion water repellent containing a zirconium salt base, providing excellent water repellency on both synthetic and cellulose fibers. It is used extensively on polyester/cotton blends.

Fabrics to be treated should contain no residual surface active agents and have no pH higher than 7.0. Bath concentration for padding will vary depending on the fabric and weight but generally 6-10 % owb is adequate for most purposes.

Water temperature should be in the area of 50-100°F(10-38°C) before adding the **Orco Repel Z-L™**. Higher temperatures sometimes cause insolubility.

Treated fabrics should then be dried thoroughly at temperatures below 300°F(150°C) if possible.

Orco Repel S™

Orco Repel S™ is a durable silicone water repellent for use on polyester and blends containing cotton, acetate, nylon, acrylic, and rayon and is applied with a proportional amount of **Orco Repel Catalyst S™** and may be applied with or without additional resins. Application is done with a padding operation. Varying the amount will give different characteristics to the fabric. Examples are shown as follows:

- To attain water *repellent finish* use 4 % owb **Orco Repel S™** and 2 % owb **Orco Repel Catalyst S™**.
- To attain *spot and stain finishes*, use 2 % owb **Orco Repel S™** and 1 % owb **Orco Repel Catalyst S™**.
- To attain *crease resistant finishes and water repellency* use 4 % owb **Orco Repel S™** and 2 % owb **Orco Repel Catalyst S™** with the required amount of resins.

For use with resin

Add proper amount of crease resistant resins to 2/3 of final volume of water. Add the resin catalyst. At this point add proper amount of **Orco Repel S™**, and while continuing the agitation, add 2 % owb **Orco Repel Catalyst S™**. Bulk this bath up to proper volume with water. Drain into padder and run at desired pick-up rate. Dry in normal manner followed with a four-minute cure at 300°F(150°C) or less if possible.

For use without resin

Fill tank with proper amount of water and add desired amount of **Orco Repel S™** while mixing the bath. Continue agitation and add proportional desired amount of **Orco Repel Catalyst S™**. Drain emulsion into padder and run at desired rate of pick-up. Dry in normal manner followed with a four-minute cure at 300°F(150°C) or less if possible.

Various finishes such as **Orco Non-Slip SS™** or **Orco Flex Finish™** may be applied in conjunction with the repellent although 10-15% owb more repellent may be required.