

How to Print on Polyester using OrcoSperse™ Pigment Dispersions

Basic information regarding the printing on Polyester using **Orcosperse™** aqueous pigments is shown below. There are many parameters and variables involved with pigment printing which go beyond the scope of this procedure. Pigment printing concerns itself with the following basic factors:

Pigments

Orcosperse™ pigments are nonionically or anionically aqueous dispersions. These may or may not be resin-bonded.

Low-Crock

This is a resinous material, usually acrylic or styrene butadiene latex which, in some cases, is compounded with a melamine formaldehyde resin to improve cross-linking and thus improving washfastness.

Clear Concentrate

This is usually a synthetic polymer dispersed in an emulsion or colloid which swells and increases in viscosity when dispersed in water usually with high shear mixers like a Barenco or a Hill homogenizer.

1. Prepare typical print paste with the following:
 - 1-8 parts **Orcosperse™** pigment concentrate
 - 1.5-2.5 parts **Orco Clear Conc SP-2™**
 - 5-10 parts **Orco Low-Crock T-550™**
 - X parts Water
2. Charge tank as follows in order listed:
 - X parts Cold Water
 - 1.5-2.5 parts **Orco Clear Conc SP-2™**
3. Run a high-speed mixer 10-12 minutes until smooth.
4. Add 5-10 parts **Orco Low-Crock T-550™**.
5. Add desired amount of **Orcosperse™** print paste prepared above and continue mixing for 4-8 minutes until dispersion is complete.
6. Check viscosity. If a higher viscosity is desired, add additional **Orco Clear Conc SP-2™** with mixing for 5-7 minutes.
7. Print material on either a flat-bed screen or rotary screen.
8. Cure at a minimum of 275-300°F(135-150°C) for 60-90 seconds.