



# VLTP-230 Series

## Versatile Low Temp Poly

### General Info:

The VLTP-230 is WM's most versatile series on the market, enabling printers to print on the most difficult substrates. Not only does this system hold up to the worst bleeders, but at the lower cure temps it could save a shop a ton of money in reduced energy costs.

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#### Applications

- Direct printing
- White or light colored garments
- 100% Cotton garments
- Cotton/Polyester, Acrylic, Polyester, Polypropylene
- Spandex and stretchable substrates

#### Features

- Superb Bleed Resistance
- No Ghosting
- Great Stretchability
- Easy to print viscosity
- Great replacement for silicone inks
- Flat, smooth finish for multi-color printing

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**Bleed Resistance:** Excellent

**Opacity:** High

**Storage:** 70° to 80°F. Due to the ability to cure at low temperatures, this is **extremely important**. Ink will become thicker over time but can be reduced to a printable viscosity.

**Mesh:** 61-230

**Stencil:** Any direct emulsion or capillary film.

**Wet on Wet Printing:** Can be printed wet-on-wet to increase production.

**Modifications:** Modifications are not recommended unless completely necessary. To reduce viscosity use Curable Reducer (I10-9906), improve stretch use G&S Base (I10-1020) & puff use Puff Additive (I10-9903). ANY modification will effect Low Cure properties.

**Squeegee Hardness & Angle:** Medium to hard at a 45 degree angle.

**Flashing:** 700°F for 3-5 seconds, just enough for the surface to be tack free.

**Squeegee Blade:** Sharp.

**Fusion/Curing:** 230°F/121°C for 1 ½ minutes. 325°F/163°C for 1 to 1 ½ minutes.

**Wash-up:** Any plastisol cleaner.

**Special Notes:** PVC inks are thermoplastic compounds that require heat to fuse or cure. If ink rubs off on a white cloth or cracks, temperature and/or dwell time should be increased. Do not dry clean and always test on fabric to be printed.

### Printing Tips

As today's garments become more difficult to print on it becomes increasingly important that printing and curing parameters be monitored to ensure the most success on these substrates. Each type of substrate will have different printing requirements. Below is a quick outline of suggestions to yield a higher success rate for each type.

## **Cotton & Poly/Cotton Blends**

Cotton and Poly Cotton blends should be the easiest of the substrates to print on. Curing temperature remains a small factor even on these easier to print garments. Suggested temperature to cure these type of garments is 270°F/132°C to 300°F/149°C 1 to 1½ minutes. The lower temperatures will help reduce the chances of bleeding on the blends, possible ghosting and scorching on the 100% cotton.

## **100% Polyester**

This is where the printing becomes more difficult and monitoring of the printing and curing parameters become important. Curing temperature and deposit thickness will play a big role in whether a printer is successful or not on these substrates. The lower the temperature the substrate is cured at, the less likely dye migration will take place. Suggested temperature to cure these type of garments is, 250°F/121°C to 270°F/132°C 1½ to 2 minutes. In addition to the lower temperature, we recommend our Brute White be printed as an underlay with no more than a 110 mesh.

## **Sublimated Polyester**

This is where the printing becomes even more difficult and monitoring of the printing and drying parameters become crucial. Curing temperature and deposit thickness will play a big role in whether a printer is successful or not on these substrates. The lower the temperature the substrate is cured at, the less likely dye migration will take place. Suggested temperature to cure these type of garments is 230°F/110°C 1½ minutes. In addition to the lower temperature, we recommend an underlay of white be printed with a 110 mesh, flashed and then printed once again with a mesh between 110 & 230 depending on how soft you want the final product to be.

## **100% Nylon and Other Heat Sensitive Substrates**

These type of substrates can be damaged when exposed to high temperatures. Suggested temperature to cure these type of garments is 250°F/121°C to 270°F/132°C 1½ to 2 minutes. In extreme cases, a temperature of 230°F/110°C to 240°F/116°C for 1½ minutes can be used to cure the ink along with the use of our Long Life Nylon Bonding agent.

## **Stretchable Substrates**

Make sure to print a thicker deposit on these substrates. Recommended mesh count would be no more than a 110 with a print-flash-print technique. Cure at temperatures between 270°F/132°C 1½ to 2 minutes.

## **Prior to production**

The above tips are to help the printer be successful against dye migration and other factors when screen printing, not a guarantee. It is still up to the printer to test prior to running production due to the variables involved in manufacturing shirts/substrates. Inks may thicken in colder temperatures but will return to normal printing viscosity when stirred.