

# Sublimation Inks for Polyester Decoration

## Introduction

Digital sublimation printing is firmly established as a technology delivering outstanding quality in polyester decoration. With a dry fixation process there is no need for water management and set-up can be immediate.

## Benefits

Sublimation inks produce intense color combined with excellent application fastness for fashion, sports apparel, flag, banner and display printing. When applied digitally further benefits of design freedom and detail along with simple and low-cost set-up allow customers to create value in settings ranging from a home garage to an industrial textile mill. Sublimation is a dry process requiring no steaming to fix the dyes, resulting in a more sustainable and cost controlled technology.

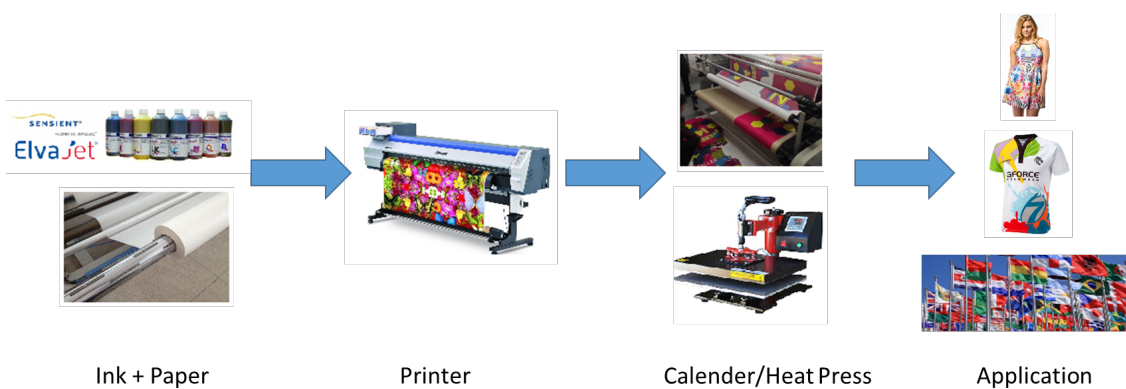
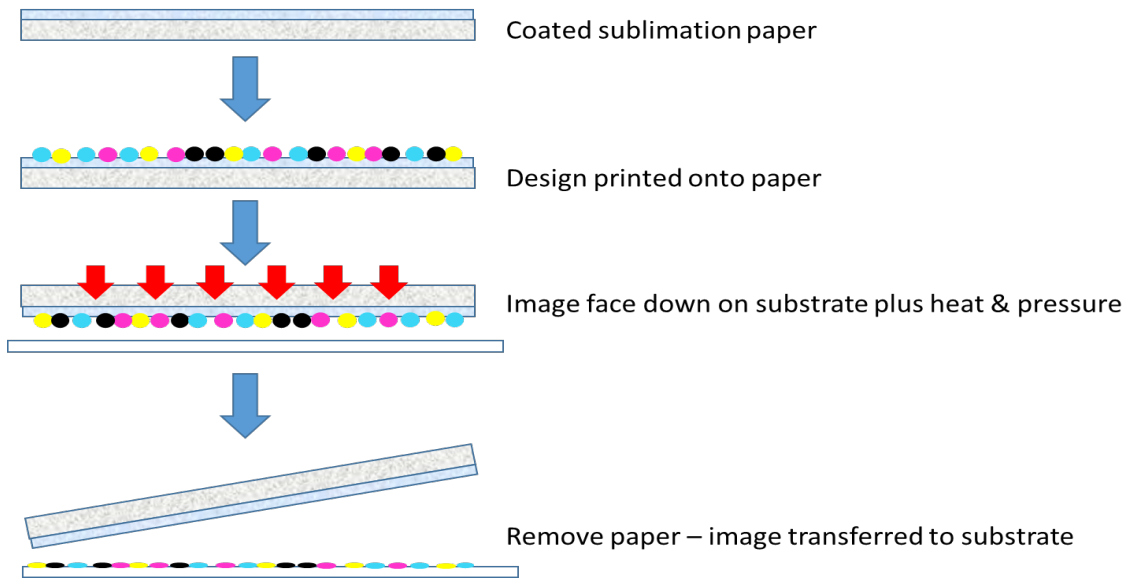
Sensient's focus is on innovation and offering value to our customers, giving them a competitive advantage in their business by enabling them to deliver outstanding quality prints to their buyers.

Sensient's ElvaJet® range of digital sublimation inks is a pioneer within the industry, offering the ultimate performance in color combined with outstanding production reliability, fastness and compliance to textile standards.

## How sublimation printing works

Sublimation dyes are low energy disperse dyes. At high temperatures these dyes turn into a gas, allowing them to penetrate polymers such as polyester fibers, which are "opened up" at a similar temperature. Once cooled the fibers lock in the dye, delivering excellent fastness properties.

In a printing process, the dyes are applied via inks to a specialty transfer paper. Once printed and dry the paper can be used immediately or can be carefully stored for future use (recommended within 1-2 weeks). The paper is placed image side down onto the polyester or polymer substrate and under heat and pressure the image is transferred to the substrate. Such a transfer can be done using a sheet in a heat press or roll to roll using a calendar system. The transfer paper is then recycled and the substrate ready to be used in its final application.



### Recommended Transfer Conditions:

Heat = 190-210°C (375-410°F)

Pressure = 40psi (medium)

Time = 30-45s

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