

Y8 Textiles Article 1

WHAT IS SUBLIMATION PRINTING?

This is the technical bit! Sublimation printing is the application of sublimation inks onto a surface using a heat press to provide the required combination of heat, time and pressure. This combination causes the inks to be converted from a solid to a gaseous state. The colour penetrates the surface of the item so that the result is colourful, long lasting and resistant to scratching unlike some other printing methods that merely print onto the surface of the item.

Dye sublimation printing is always done on a polyester, polymer, or polymer coated item. At high temperatures, the solid dye converts into a gas without ever becoming a liquid. The same high temperature opens the pores of the polymer and allows the gas to enter. When the temperature drops, the pores close and the gas reverts to a solid state. It has now become a part of the polymer. For this reason true dye sublimation cannot be done on natural materials such as 100% cotton. Natural fibres and non-coated materials have no "pores" to open.



WHAT CAN BE SUBLIMATION PRINTED?

You can sublimation print onto a wide variety of items provided that the surface is suitable for sublimation printing. Hard items include specially coated plaques, signs, placemats, coasters, tiles, mugs, metal and keyrings. Soft items include polyester fabric, canvas, t-shirts, cushions, car sun screens, pillowcases and more! A sublimation print on a suitable polyester fabric is permanent, feels like part of the fabric and will not crack, peel or fade.



WHY IS SUBLIMATION BETTER THAN OTHER SYSTEMS?

The advantage of sublimation printing is that the results are **permanent**. The transferred images are not on the surface of the substrate - they become part of the substrate itself which means that the items are much more durable.