

Dye sublimation is a digital printing technology that uses heat transfer to apply an image to the intended substrate. Also referred to as digital sublimation, the process is commonly used for decorating apparel, signs and banners as well as other items with sublimation-friendly surfaces.



Dye sublimation features the following two-part process:

In step 1, unique sublimation dyes are transferred to sheets of “transfer” paper via liquid gel ink. The ink is deposited on these high-release inkjet papers, which are used for the next step of the sublimation printing process.

In step 2, the printed transfer sheets are transferred through heat, which converts the solid dye into a gaseous form without going through a liquid form. Heat coupled with pressure causes the dye to penetrate the interior of the substrate, creating a permanent color bond. Once the heat is removed, the dye returns to a solid form and the process is complete.



As colors are embedded in the substrate or fabric, rather than printed on the surface, images won't fade or crack even after multiple washings.

The dye sublimation process is a more cost effective solution to having graphics printed on metal but it does not have the outdoor durability that MetalPhoto™ offers.

DuraTech has successfully performed the dye sublimation process onto the following materials.

- Aluminum—white, gold and silver
- Specially treated wood
- Ceramic tiles
- Can koozies
- Acrylic
- Key chains
- Mouse pads
- T-shirts (polyester)

The maximum image size is 12" x 18". All surfaces must be flat.