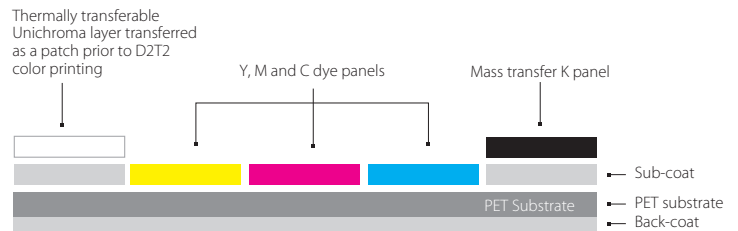# ITW
Security Division

Unichroma™

Imagedata Color Personalization for Polycarbonate Cards

ITW Security Division's Imagedata Unichroma™ coating technology enables dye diffusion thermal transfer (D2T2) color images to be applied to polycarbonate (PC) and other difficult to print ID card substrates. As a result, color photographs can now be combined with laser engraved personalization optimizing both ID card security and ease of authentication.

Unichroma™

Unichroma is a clear, colorless, dry coating, which is supplied on the same thin PET carrier ribbon as D2T2 dyes and applied directly to the surface of the card using a conventional D2T2 printer with a thermal print head. It may be supplied as the first panel in-line with Y, M, C, K dyes on paneled ribbons for use in desktop printers or as a separate, continuous roll for use in central issuance equipment.*

Thermally transferable Unichroma layer transferred as a patch prior to D2T2 color printing

Y, M and C dye panels

Mass transfer K panel

PET Substrate

Sub-coat
PET substrate
Back-coat

Low-Cost Color Personalization

Unichroma can be selectively applied to the card's surface only where colors are needed, leaving the remainder of the card area unmodified. This minimizes the cost per card and enables use with a wide selection of over-laminates to achieve the desired performance characteristics.

D2T2 Printing on Difficult Plastic Substrates

Unichroma acts as a color primer to improve the appearance of D2T2 printing on some plastics and enables its use on others, such as PC, without requiring special, expensive card stocks.

*Special firmware may be required from your card printer OEM in order to use Unichroma ribbons in D2T2 printer equipment.

Substrate	D2T2 Printable	Unichroma D2T2 Printable
PVC	Yes	Yes
PC	No	Yes
PET	No	Yes
PETix	No	Yes
PET-G	Sometimes	Yes
ABS	Yes - Low Density	Yes
Bio-PVC	Yes	Yes
PLA	Yes - Low Density	No
Paper	No	No

Advantages

✔ Affordable color personalization for PET, PC, and other card stocks
✔ Compatible with conventional D2T2 printers
✔ Compatible with ITW Security Division patch products
✔ Desktop and central issuance solutions

Applications

• Driving Licenses
• ID Cards
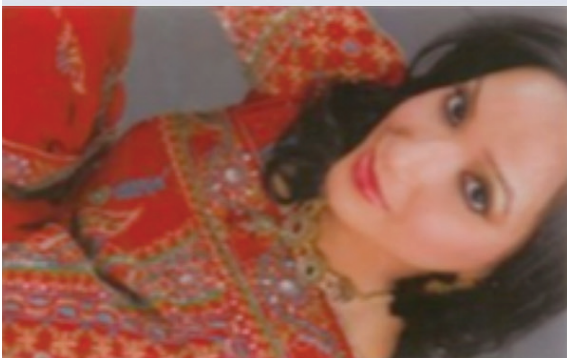• Other long-life, high security cards

PVC Card Stock

D2T2 Printing

Polycarbonate Card Stock

D2T2 Printing

Unichroma +D2T2 Printing

SAMPLES: ITW Security Division works with most original equipment manufacturers (OEMs) and understands the product requirements necessary to match each machine. With this in mind, sample product is usually available through the OEMs for product testing.

NOTE: Although the information provided herein is given in good faith and deemed reliable, it is not intended as a warranty. We recommend that customers trial the product in order to determine suitability in the intended application. Please contact your OEM to receive material for trial purposes. ITW Security Division reserves the right to change specifications without notice.