



*Air*Dye[®]

SUSTAINABLE
PRINTING & DYEING

D-LAB
DEBS INNOVATION GROUP

AirDye®

Debs Textile Corporation's proprietary AirDye® technology is your sustainable solution to printing and dyeing. Save up to 170 liters of water per garment and don't buy more inventory than you actually need, thanks to our flexible order minimums. All this without having to compromise on color accuracy and brilliance with almost no limitations on prints. Also, get creative with AirDye®'s flexible coloration options that allow double-sided coloration and printing.



01 Environmentally Safe

AirDye® technology saves **95% of the Water**, **86% of the Energy**, and **84% of the Carbon Emissions** compared to conventional printing and dyeing methods.

- Uses air instead of water to penetrate dyes into fabric.
- No pre or post chemical treatments necessary.
- No screens, gravures, or other wasteful materials used in production.

02 Speed & Efficiency

AirDye® colors and prints can be developed within days, and sampling can be produced with full accuracy quickly and efficiently.

- Proprietary IMBU Color Management System™ streamlines custom color development.
- Order quantities can be adjusted flexibility without any compromise on quality.
- Single pass production system doesn't require unnecessary processes such as canvassing, steaming, washing, or drying.

03

Color Accuracy

The IMBU Color Management System™ provides fast and accurate color matching from design development to sampling to bulk order production.

- Custom colors are created within a production-realistic color gamut and seamlessly matched across different light sources and base fabrics.
- Colors are developed “Right First Time” due to software's ability to auto-adjust color recipes quickly and efficiently.
- Ensures color produced the same across multiple machines.

04

Design Potential

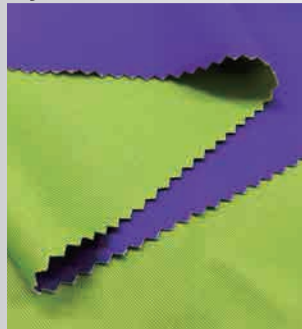
AirDye®'s patent includes two-sided coloration of a fabric. Production on both sides is done simultaneously, enabling creative design possibilities.

Single Side Print



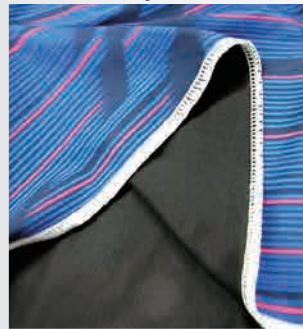
Print on face side.

Dye Contrast



Dye different colors on opposite sides.

Print to Dye



Print on one side, dye the other.

Print Contrast



Print on both sides.

05

Good Colorfastness

AirDye® production enables dyes to penetrate deep into each filament of the fiber compared to conventional dry processes such as heat-transfer printing. Also, no dye residue remains on the surface of the fabric, common on wet processes such as jet-dyeing.

Heat Transfer Printing



The dyes do not completely penetrate the fibers, thus creating uneven coloration and lots of white show-through on the surface of the fabric.

Jet Dyeing



After treatment in a water dye-bath, the fibers show complete dye penetration. However, colorfastness is low to moderate due to dye residue.

AirDye® Controlled Penetration



Using our proprietary dyes, penetration is deeper. Colors are richer and colorfastness is better. Penetration control can be used to dye or print both sides of the fabric with different colors, prints, or a combination of both.

debs
share the passion!

debs textile corporation

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