imagetechnology incorporated

Technical Information and Application Instructions

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Image Technology Ultra Bright White

"UW-10"

Image Tech UW-10 Ultra Bright White is an all aqueous water based screen printable ink which produces an exceptionally **"bright white"** print on dark fabrics with a **very soft hand. UW-10** when used properly will "effectively displace" the dyes in the printed garment allowing the "printed color" to "take the place" of the fabrics dyed color, thus accomplishing what is commonly known in the industry as "discharge".

UW-10 Ultra Bright White modifies the garment color by removing or discharging the garment color and replacing it with the new ink color. In simple terms, the discharge ink "bleaches" out the dye in the garment, thus allowing the pigment in the ink to absorb into the shirt fibers providing a dyed-in-the-fabric result.

Technical Information:

The dye used in the garment must be dischargeable. The best results are achieved with garments that are 100% cotton and dyed with a reactive dye.

The garment ***cannot have been over dyed*** (when fabric is re-dyed to another color). This often happens because of a shortage of a certain fabric color or, in many cases, because quality control rejected the fabric color. These rejected colors are then over dyed with a black dye, which will bring nightmares to life when trying to use discharge inks. The

discharge ink might discharge the black dye - only to reveal a phantom color underneath.

Always test your garment first to see if it is suitable for discharge printing. If you are a major printer doing large volume printing, be aware that the garments you order from the mill are tracked by lot numbers, as it is possible that a completely different dye may be used from one lot to the next thus creating a color shift from print to print.

UW-10 Ultra Bright White can be printed through a variety of meshes from 60-230 monofilament polyester. Printing technique and environment is very important when printing through the higher mesh counts. Note: Variations in the ink deposit control the brightness of the final print.

UW-10 Ultra Bright White are water based, so it is imperative that you use water-resistant emulsion.

Drying/curing: It is in the dryer that the discharge effect takes place. A conveyor dryer with hot forced air is ideal for discharging/drying (electric, infrared or gas are acceptable). The longer the oven chamber, the better because of the slower belt speed needed for curing discharge inks. The recommended drying/curing temperature is between 310 degrees f. to 330 degrees f. and it generally requires 2 to 3 minutes dryer retention time to “complete the discharge”.

Mixing Instructions: Begin by adding from 5% to 10% by weight, of the **“Discharge Agent”** to the **UW- Ultra Bright White,** mix thoroughly, allow the mixture to “relax” for about 5 to 10 minutes prior to printing. Thin ink if necessary with plain tap water. Mix only the amount of ink that you will use in about a 4 hour period as the mixed ink has a “pot life”.