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TDS 1/008

SHEETFED LASER PLUS PROCESS INKS

The new generation of "HIGHLY IMPROVED TECHNOLOGY" process inks from the Huber Group are manufactured to give optimum press performance in terms of gloss, strength and stable ink/water balance. At each stage of the production process raw materials are selected to impart the highest level of quality. The wetting medium used aids the pigment wetting process, and the precisely controlled dispersion conditions ensure that the pigment is completely coated with binder, in a stable manner. This is a critical area during the production process, and controls the overall press performance of the ink. The use of "HIGHLY IMPROVED TECHNOLOGY" has greatly improved the printing characteristics of the ink.

The HIT process guarantees a high level of production reliability and the best possible printed results.

APPLICATION NOTES

When producing printed work that is to be subsequently exposed to an application of hot laser personalisation, it is imperative that great care is taken concerning product selection and application.

Personalisation is growing in popularity at a significant rate and the laser machines themselves are becoming more sophisticated; running at higher speeds.

The actual process of hot laser is similar to that of a photo copier with black toner, and heat being an integral part of the process. However, the heat of a modern laser printer is significantly higher than that of a photo copier. The average laser printer temperature is approximately 200°C, but different specifications do vary and the speed (dwell time) is also obviously an influencing factor.

Stehlin Hostag's Laser Plus Process inks are formulated to give the required resistance to these conditions. When printing with these inks it is imperative that the correct selection of paper is used; consultation with your paper supplier will clarify this situation.



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It is also important that the amount of ink used on the design is limited; the higher the percentage of ink the more potential for problems. Normally this type of application is 10% to 50% ink coverage. If the design dictates higher levels than 50% inking then screens should be used rather than solid areas.

To ensure the oxidation drying cycle is totally complete, and all by-products of this chemical reaction are dispersed, the prints should ideally be left for a minimum of 48 hours before being exposed to the laser printer. (The substrate used and any emulsification of the inks, for example, can have a negative affect on the time taken to fully dry) If laser printed too soon after printing then the following problems can occur:

1. Fuming of any retained oxidation products held within the substrate, this causes an unpleasant odour and possibly leading to irritation to the operators.
2. Build-ups of ink on the heated fuser roller which results in excessive stoppages for cleaning or even damage to the fuser roller.

The inks are formulated to the maximum pigmentation levels so that minimal film weights of ink can be carried.

LASER PLUS		FASTNESS CHARACTERISTICS PER DIN 16 524/25			
		Light WS	Alcohol	Solvent Mixture	Alkali
LASER PLUS – Yellow	170 996/R	5	+	+	+
LASER PLUS – Magenta	170 997/R	5	+	+	-
LASER PLUS – Cyan	170 998/R	8	+	+	+
LASER PLUS – Black	170 999/R	8	-	-	+

WS = Wool scale



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POST PRINT APPLICATIONS

UV VARNISHING (Rollercoat)	Yes
UV VARNISHING (Silk Screen Spot)	Not Suitable
LAMINATION	Yes
LASER PERSONALISATION	Yes
BLISTER PACKAGING	Not Suitable
FOIL BLOCKING	Test First

(Although the inks are formulated to allow certain post print applications to be carried out successfully, there are many factors outside of our control; such as the substrate used and quality of UV lacquer or foil applied. Therefore care should be exercised during any post print application)

PACKAGING

1 or 2.5kg Vacuum-sealed Tin
200kg Drum
2kg Cartridge

**IT IS IMPORTANT TO NOTE THAT THESE PRODUCTS HAVE A SHELF LIFE OF
2 YEARS FROM DATE OF DELIVERY**