



Tech Talk From

Prisco®

Tech Talk #C7

WORK AND TURN AQUEOUS COATING APPLICATIONS

The printing and coating of two-sided work is challenging. Controlling the variables involved in the printing process, allowing an adequate wait time before a second pass, monitoring dryer settings and monitoring pile temperatures will provide predictability and successful application of aqueous coating.

Front or First Pass Printing and Coating Application

1. Use a two-sided coating recommended by your Prisco Representative. The coating should be able to dry fast, dry hard, and pass a face-to-face block test of 10 PSI @ 120°F, for 6 hours.
2. Be sure to check the viscosity of the coating prior to application. In addition, it is important to pre-mix or stir the drum prior to any coating application to ensure a homogenized product is applied evenly to the sheet.
3. Normal coating application on the first side requires a light application of fine to medium micron spray powder
4. A combination of Infrared energy and maximum volumes of warm air should always be used in order to accomplish drying.
 - IR setting should be between 40-60%.
 - Set air volume at 100%. It is important to note that the volume of air should never be decreased to achieve the desired pile temperatures.
 - Temperature of air should be adjusted to achieve a 95°F (21°C) pile temperature at delivery. If the drying system does not have the ability to raise or lower the air temperature, the infrared recommendations will be lower to achieve the desired pile temperature.
5. Normal pile height used for one-sided printing and coating application may be used.

SERVICE AND TECHNOLOGY FOR THE GRAPHIC ARTS®

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BACKSIDE OR SECOND PASS PRINTING AND COATING APPLICATION

Some printers successfully print and coat the second side very soon after the first side. The length of time between the first and second pass depends on many variables that must be taken into consideration when determining when a second pass can be accomplished. These include; type of press, press speed, fountain solution, ink, stock, percentage of ink coverage, drying capabilities and atmospheric conditions.

Because of the many variables involved, a minimum waiting time of 4 hours is recommended between the first and second side application. This delay will help minimize the effects of all the variables on the printing and coating process.

1. Prior to printing and coating the second side, it is important to check the pile temperature. If the pile temperature after the first pass is 90°F (32°C) or higher, the sheets should be aired or winded to allow them to cool. If the pile temperature from the first side is left at elevated temperatures, it will be difficult, if not impossible for the drying system of the press to dry the job effectively.
2. The pile temperature on the second side should be between 85° and 90°F (29-32°C). This temperature should be achieved by a reduction of the IR settings from the first side. The air temperature settings should remain fixed. Again, the air volume should never be decreased. A reduction of press speed on the second pass may be required to deliver a dry sheet to the load.
3. The amount of spray powder on the second pass may need to be increased to prevent offsetting and allow better drying.
4. The pile height on the second pass may need to be reduced or the pile may need to be racked in order to prevent offsetting.
 - Stock weight or caliper should be considered when determining pile height.
 - The time interval between first and second pass should be considered when determining pile height.

As always, your local PRINTERS' SERVICE office is happy to answer your questions:

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