



Achieving Consistency with Bonding

As our technical group travels to plants across the country and outside the U.S., a common statement of plant personnel is that they are running a wide variety of paper from several paper mills. In many cases it is not only a variety of grades from lightweight to heavy, but also specialty paper, high humidity papers, coated liners, and on and on. They are finding that the same centerline settings don't necessarily provide the best bond on the same grade from one mill supplier to the next.

Bonding on lightweight and heavyweight liners will require different temperature targets, glue gap settings, and pressure at times to achieve the best board at the highest possible speed. Some of the differences are dictated simply due to the higher density of the paper, but other factors come into play as well. From one mill to the next, the fibers may be more closed than another, or have a higher water absorption rate (Cobb Test Value). Some High Humidity papers intentionally have a higher resistance to moisture and since we all use a water-based starch adhesive it makes these liners more difficult to bond. Then some have liners with functional coating pre-applied or applied on liner which can affect the ability to bond.

Equipment such as Infusion Plates, Tension and Brake Rolls has greatly improved the adhesion of liners at higher speeds. Steam showers with water injection added to Tension rolls and infusion plates or rolls are needed to get the higher speeds. Preheaters alone are not enough. Condensate or wet steam has been commonly used for medium steam showers and now having a good mixture of injected water into live steam has improved the way the fibers in the liners quickly are absorbing and enhancing the way starch penetrates into fibers for adhesion.

Through trial and error, you have probably discovered how to run each of the liners in use at your plant, but are you getting the best bond at high speed or are you speed limited on certain liners? Our Technical Services Team works with the various liners across hundreds of plants and may be in a position to assist you even further if needed. Please contact them for more information or with questions about running some of your difficult liners at 800-669-7589 or email: solutions@corrugatedchemicals.com at your convenience.



3865 Virginia Ave
Cincinnati, OH 45227



(513) 561-7773
FAX: (513) 527-6892



corrugatedchemicals.com
solutions@corrugatedchemicals.com



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