



**Tech Talk from**

**Prisco®**

*Tech Talk #C11*

## RECOMMENDATIONS FOR BLISTER PACK COATINGS

The application of blister pack coating is similar to other aqueous coatings. They can be applied with blanket coaters or coater dampeners, in-line or off-line. In addition, the physical properties, such as pH, solids, and viscosity, are very similar to typical aqueous coating.

The difference between the coatings is that the blister pack coating is applied to form a bond between a plastic blister and the substrate.

Preliminary testing is recommended to determine if the requirements for the specific application are met. Several requirements should be taken into consideration prior to working with blister pack coating in order to guarantee optimum performance.

1. **Coating Film Weight** - If too little coating is applied, not enough coating will be absorbed into the board fibers and therefore the bond between the plastic blister and the board will be insufficient. Improper bonding is demonstrated if the plastic blister can be removed from the board without resistance (fiber tearing). If too much coating is applied, blocking will occur.
  - A dry film weight of 0.65 to 0.78 lbs per thousand square feet of stock is recommended. The dry weight translates to a wet film weight of 1.5 to 1.8 lbs per thousand square feet of stock.
2. **Blister Pack Board** - It is crucial that a blister pack board be used, so that the proper level of fiber seal and tear will be obtained. Other substrates do not allow for the proper absorption of coating, resulting in failure. Blister pack board suppliers include: Federal, Westvaco, CCA and others.
3. **Wax-Free Inks** - The use of wax-free "blister pack inks" is also mandatory to obtain optimum seal and fiber tear.
4. **Blisters or Bubbles** - Blisters manufactured from PVC or PET are recommended. Some plastics and blisters may have a silicone film on both sides of the material. These types of products should be avoided.

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5. **Pressure, Dwell Time, Temperature** - Even if all of the above criteria are met, the process of actually sealing the blister to the substrate can be problematic. A successful seal is achieved only when sufficient pressure, dwell time, and temperature variables are within specifications.

- 60 psi (413.7 kPa), 2.5 seconds dwell, at 275°F (135°C) is recommended for most blister pack coatings used on 12-point board with 10 mil (.254mm) PVC blister.

This recommendation is only a guideline. Increasing one or all of these variables may be necessary if heavier substrates and/or plastics are used. As the substrate thickness increases the interfacial bond (where board and plastic meet) temperature between the substrate and the plastic decreases.

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