

# SUCCESSFUL BLISTERPACK PRINTING GUIDE

Sealing product within a plastic blister is becoming increasingly popular, with waterbased adhesives applied via in-line and off-line coating units being the favored option over solvent based products.

Excellent adhesion is possible with a number of blisters, including PVC and PET G. A PET is more difficult to get good results with. It is however important that the recommended guidelines are followed, as material printed with unsuitable product can result in poor blister adhesion and costly re-prints. These recommendations are listed below:

**Inks** – Inks specifically formulated for blisterpack application will be heat resistant, whilst exhibiting slightly lower wax content than conventional inks (although not compulsory) and will not dry too hard. The majority of ink companies will be able to supply a dedicated blister 4 colour set as well as special matching's.

**Waterbased Adhesive** – Adhesives have been formulated to re-wet when brought into contact with heat and pressure, setting rapidly immediately after to form a strong bond with the blister plastic. Adhesives are available from ECS Nottingham Ltd for both In-Line and Off-Line application.

In order to achieve optimum adhesion, it is important to apply a heavier film weight of coating than may be the case with normal waterbased emulsions. The recommended wet film weight for blisterpack adhesives is 8-12gsm but the more that can be applied the better. (*Conventional emulsions have a recommended wet film weight of between 2 and 6gsm*).

Spray powder is recommended, although application should be kept to a minimum.

Cards that have been printed but have not yet been blistered should not be left for long periods of time. This is due to the natural hardening of the adhesive and ink, which after prolonged periods of time will reduce blister adhesion.

**Substrate** – Boards should not be too highly coated, and must allow good penetration of the ink and adhesive into the fibres. In order to achieve optimum adhesion heavier grammage boards may require increased dwell times and heat sealing temperatures. The board manufacturer prior to any production runs should recommend the substrate.

***Impervious substrates are not suitable for blisterpack application with waterbased emulsions.***

**Heat Sealing Settings** – Test results indicate that optimum adhesion is achieved at platen head temperatures of between 150°C and 180°C, with dwell times of between 1 and 5 seconds.

Due to the liabilities involved with blisterpack printing, ECS test Waterbased adhesives at all stages of the manufacture process. This includes monitoring raw materials, manufacturing practices, and thorough testing of the finished product. ECS cannot be held responsible for improper use of these products.

For further information relating to blisterpack adhesives please contact ECS via [sales@ecsnotts.co.uk](mailto:sales@ecsnotts.co.uk)