



Film-Faced Pouch Materials

These pre-laminated materials are designed to be surface printed and are typically used to package dry goods in flexible packaging. Film structures carry a variety of chemical resistance and barrier properties due to the diversity of applications for packages with film facestocks. For these reasons, the product offering in film-faced structures is more complex.

Tensions

There are two categories of film-faced pouch materials.

- A multiple film lamination that often contains a barrier layer of foil. The multiple layer laminations utilize similar web tensions as paper-face pouch materials and similar to pressure-sensitive material tensions.
- A very thin film that contains a single or two layers of film laminated together. The thin film laminations require a press designed specifically to convert these materials and would include the following requirements:
 - Better level of tension control vs. pressure-sensitive presses required
 - Low tension unwinds 1 mil film = 1/2 PLI setting
 - Web path designed for extensible materials
 - Idlers rollers and bearings – low friction, easy turning
 - High air flow/low heat air dryers
 - Proper roll handling
 - Cold UV light system/chill roll or chill drum

Printing Ink Recommendations

- Heat resistant film inks are recommended. This can be more expensive than paper inks due to resins used.
- Post-cure happens with film printing (water based and UV), meaning the ink will adhere better over time versus off-press.
- Proactively checking and maintaining UV lamps is recommended to ensure the material is receiving proper light exposure to promote full ink anchorage.
- Expect lower press speeds with films. Longer drying times are required as the inks are not absorbed, rather “bonded” to the film’s surface.
- Higher airflow rates in the dryers will help reduce drying times.
- Films demand lower heat levels, as excessive heat will cause them to soften or stretch; chill rolls can be used to keep the web temperature low in addition to higher air flow.

Varnishing

The pouching of these materials will expose print surface to temperatures up to 375° F. Inks and varnishes need to be able to withstand these temperatures. Contact your ink supplier to verify the fit for use.

Many pouches are used for food packaging. Varnishes for the food market need to meet the end-use FDA requirements.

These materials are wound in rolls off press with the print surface coming into contact with the sealant material. Inks and varnishes need to be properly cured to avoid damaging the sealability of the material. The odor of the cured inks and varnishes also needs to be considered as the odor can transfer to the sealant film and ultimately into the finished pouch.

Overlaminating

For applications where 'buried' print is required, an overlaminate can be applied to film structures. Common practice is to use a 'same film' overlaminate as your printing surface. This allows for like performance on packaging equipment.

Adding an overlaminate may require packaging equipment to run at higher temperatures and therefore a destructible bond is required between the overlaminate and the base film structure. It is highly recommended that the overlaminate is designed for flexible packaging applications.

There are two means of applying a flexible packaging overlaminate:

- A self-wound thin PET laminate can be applied on press similar to using an overlaminate on a label. Special handling on press of this overlam may be required due to aggressive adhesive and thin film.
- A wet adhesive laminate using UV lamps for curing is a process requiring UV lamps to be in premier state, with curing time for the structure between 24 and 72 hours. A destructible bond is required for packaging equipment.

Finishing

The printed roll off press goes through a FFS for forming, die-cutting and filling to create the final pouch. The finished roll contains the front and back of the printed pouch, often many up across the web.

End Use Applications

- **Single-Ply Snack Webs** – Horizontal packaging of snacks, baked goods and ice cream novelties.
- **Multi-Ply Snack Webs** – Nuts and other oxygen sensitive salted snacks as well as liquids, primarily VFFS fillings.