

A man in a dark shirt is leaning over a control console in a printing plant. In the background, a large ink tank is visible with a label that reads "INK PROCESS MAGENTA".

Finish What You Started:

A Guide to Unique Print Techniques,
Coatings and Off-Press Finishes

JOHNSBYRNE

The Finishing Touch

When you are shopping, a product's packaging is one of the first things that stands out to you among a row of similar products—especially if the product is new. There is something physically satisfying about interacting with a product that has been exceptionally packaged.

There are a number of techniques that allow you to make your product stand out. These techniques exist in two different stages of production: techniques performed on the press and effects applied off-press. Techniques during both of these stages can be visual and/or tactile.

The range of options typically falls into these two categories. These are important distinctions when navigating this guide, in which you will find more options for printing and off-press finishing than you'd thought possible.



Eye Catching and Tactile Press Effects

Used to create visual and textural additions to packaging, high impact direct mail or specialty pieces, many of these distinctive coatings may be applied in certain locations (spot coating) or used over the entire sheet (flood coat) to provide a gorgeous and unique pattern that will draw attention.

Gloss UV

This is one of the most popular coatings used in the industry. It provides a clear coating with a high gloss. An added benefit of this coating is that it can also serve as a protectant.

UV coatings are a liquid-based, protectant coating that is applied and instantly cured with UV drying lamps. Compared to aqueous coatings, UV coatings provide an extreme-glossy finish and can deliver an abrasion- and rub-resistant performance. In order to get the best results, inks must be wax-free or UV compatible.

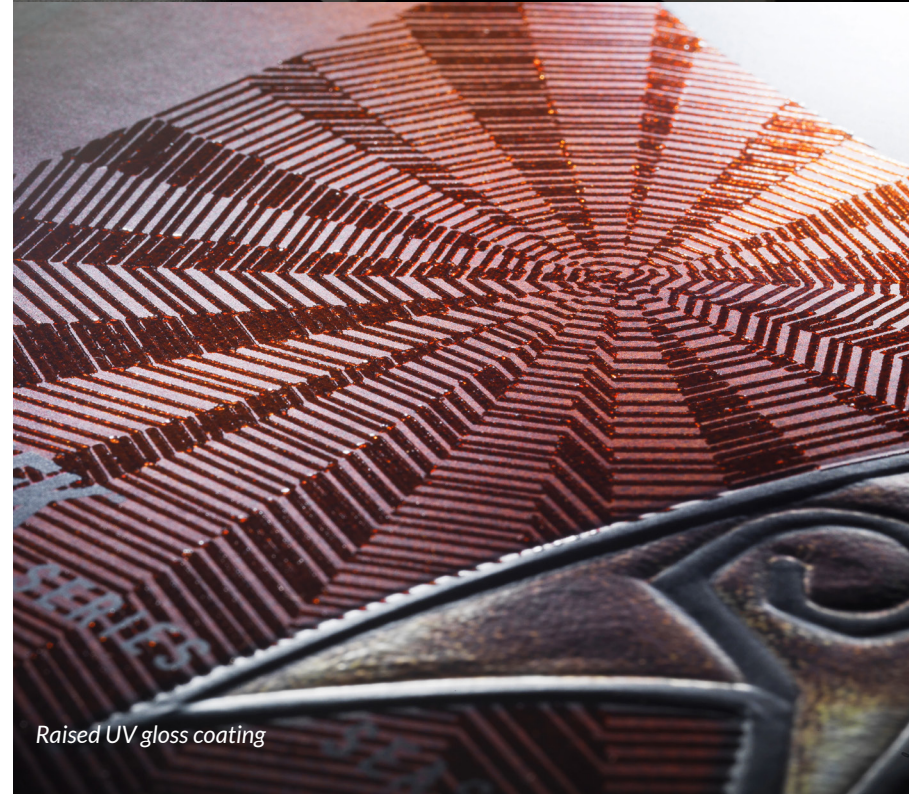
Raised UV Coatings

A great way to add a tactile or more dramatic effect is by using a raised UV coating effect. Adding more coating volume brings more added dimension that can accentuate the art or graphic, as well as invite the consumer to engage and touch.

A great example of this raised UV gloss coating can be seen on this *Star Trek* DVD o-sleeve cover to the right.



Gloss UV



Raised UV gloss coating

Eye Catching and Tactile Press Effects

Pearlescent Coating

If a luxurious shimmer appearance is what you're looking for, then a pearlescent coating is the way to go. Pearlescent coatings can be either aqueous or UV-based. For UV-based coatings, a specific quantity of pearl additive is mixed with a gloss UV coating. Depending on the variation and size of the micron particle, the pearlescent coating can have a more dramatic or subtle effect. The AQ-based version of this coating is similar, but is mixed with a gloss AQ coating and pearl additive.

In the glitter coating family, pearlescent coatings are highly decorative and are used across multiple industries. The less-dramatic shimmer adds a unique appeal to any surface without having glitter overkill. The unique nature of a pearlescent coating may be applied over a number of different colors, which creates a pearl-like shade when viewed.

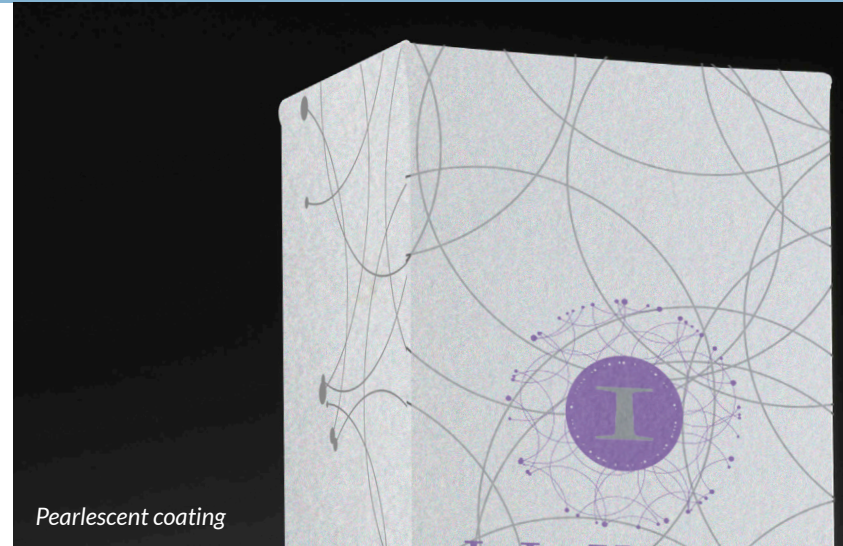
Pearl—Create a Sheet Technology

Another way to use pearl coating is to apply it with an upfront coater to the entire sheet making it a viable cost alternative to purchasing a pre-coated, pre-pearlized stock sheet that can be three to four times more expensive. Most printers don't have the press capabilities for 'create-a-sheet' solutions, so be sure to work with a provider that does, like JohnsByrne.

Glitter Coatings

For a stark and bold look, glitter coatings are the way to go. Glitter coatings are made when large glitter particles (50-200 microns) are added into UV gloss coating. They also come in a wide assortment of colors.

Glitter coatings command and demand attention especially when they are applied and contrasted against a more subtle area of the packaging like the luminaire on the right. It is also easy to see how brilliantly the glitter effect is magnified when a light source is put behind it.



Pearlescent coating



Create-a-sheet technology



Glitter coating (close-up)



Glitter coating with lighting effect behind

Eye Catching and Tactile Press Effects

Dull Varnish

Varnishes serve many purposes included being used as a protectant to the sheet and, in the case of a dull varnish, can be used to create great contrast (step-off) against a higher gloss.

Like coatings, varnishes can be applied to very specific areas (spot varnish) or can be applied to a large print area or the entire press sheet (flood varnish).

Soft Touch

If you have ever touched a package that seemed so smooth and so subtle that it felt velvet? This is due to a soft touch coating application that creates a soft, velvety texture. It also makes the piece look softer than one with a high gloss or textured coatings.



Dull varnish



Soft touch

Combination Coatings

Metallic Sheen

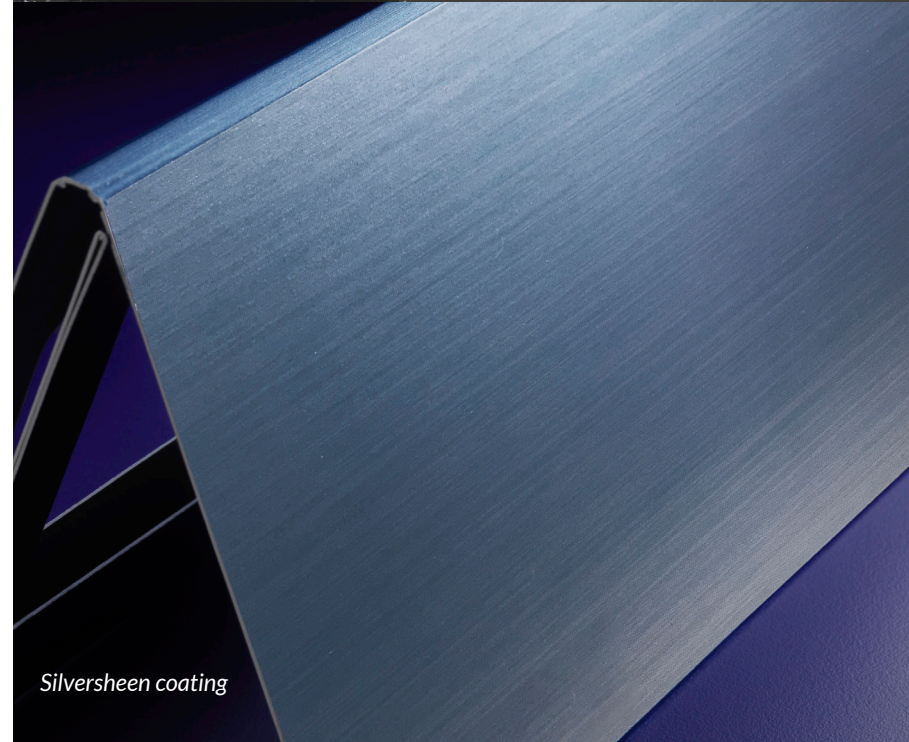
Silver and gold sheen coatings give any packaging a ritzy touch. These metallic sheens are shiny and bold without feeling too cold and metallic. Use under a base color to give it an extra gold glow or silver shimmer. Many industries continue to successfully use metallic sheens to reach their customers. Take advantage of the seemingly inherent desire of humans to gravitate towards metallic. If your budget doesn't allow for foil stamping, metallic sheens are a great cost-effective alternative that delivers the same look and feel.

Iriodin

This UV coating contains very small particles, which results in a subtle, shimmer effect, creating a vibrant luster that is almost equal to a natural pearl's sheen. Available in natural colors, this coating may appear silky smooth or as polished as a diamond. The incredible effects available with this coating make it a highly coveted way to make a package stand out. High standards of quality control make this trademarked coating a winner in almost every category.



This is an example of the great contrast and drama that can be achieved when combining coatings like soft touch and gloss UV.



Silversheen coating

Grit Sandpaper Coatings

Take your packaging experience to the next level with texturally unique grit or sandpaper coatings. While grit and sandpaper coatings reflect similar characteristics to one another, they are distinct differences between the two.

Grit

This coating is known for their coarse and rugged tactile effect. Although it is softer than a sheet of sandpaper, the reputation of this coating is the grittiest when it comes to tactile coating effects. The grip of the coating is useful as a non-slip surface and works well in applications for multi-use packaging.

Sandpaper

Sandpaper coatings are more subtle than grit coatings and provide only a slightly rough texture. The coating is similar to some unglazed clay work and gives plastics and paper products a slightly edgy feel.

In both coating applications, you can control the amount of texture that is applied on the sheet by the size of the billion cubic micron (BCM) rollers. The smaller the BCM rating of the coating roller, the lesser the amount of coating it can carry and be applied to the sheet and vice versa for higher BCM's. The BCM rollers have different well depths engraved in them that allow them to carry more or less coating volume that can accentuate the level of texture dramatically.

Both coatings can be used on a variety of substrates that allow for a stimulating tactile experience.



Grit coating

Experimenting with Coating Volume While on Press

Many customers may not know exactly what look or feel they want out of the coatings being used for their job. They often commit to a certain coating volume (i.e., BCM) prior to a press approval, and if they want to 'experiment' press-side during the press approval it can prove to be a lengthy and cost prohibitive process.

This is due to certain presses having coater units with only one anilox roller on board with a certain BCM (i.e., specific amount of coating it can carry and apply to the sheet).

New presses like [Press384](#) have technology where the coater units all have a 'Gatling gun' configuration that can store as many as four different anilox rollers with four different BCMs within the coater unit. Since these rollers are 'on-board' the coater unit, the customer can literally experiment press side during an approval and see many different looks/feels for their coatings and on their jobs.

What might have taken hours or a full day of change out can be done quickly and more cost effectively with the Gatling configuration.



Arrow pointing at the Gatling configuration.



Press384 at work.

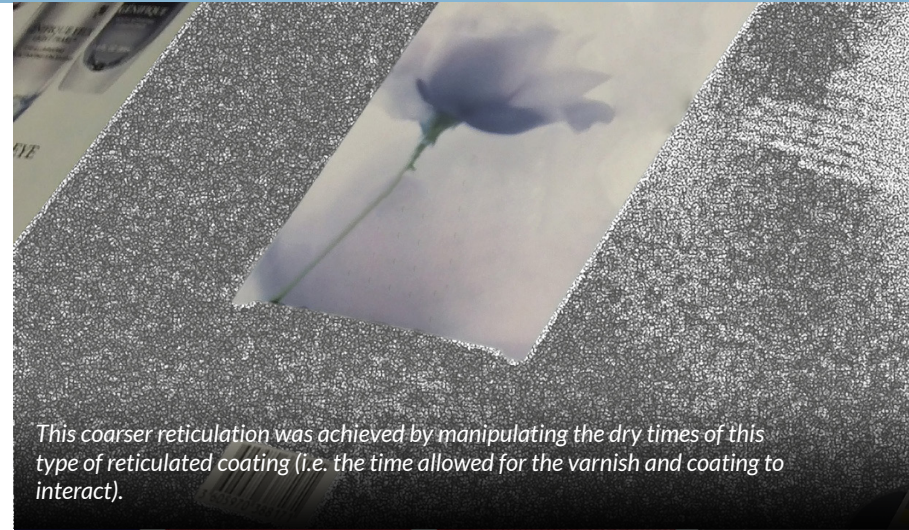
Combining Coatings and Varnishes

Reticulation Effect

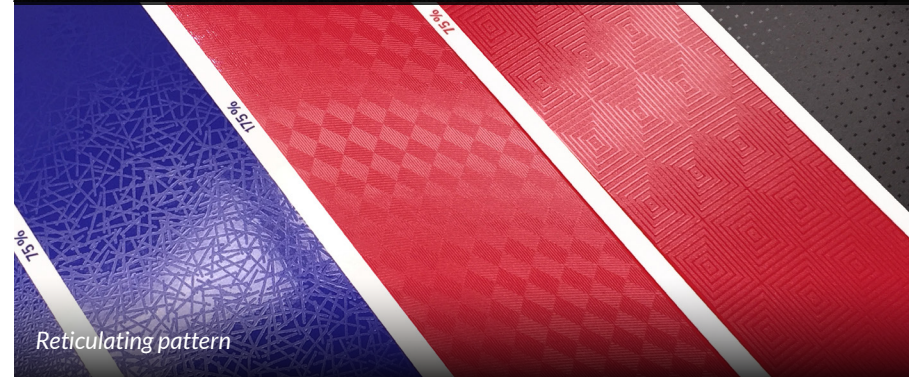
Another way to achieve a signature visual and/or tactile effect is with an on-press process called reticulation. This effect is achieved when a spot varnish and an overall UV coating is applied. When these two are mixed, there is a chemical reaction that results in a tactile and visual effect.

Working with a printer who has the press technology to properly manipulate dwell/dry times of their dryers and who have the expertise to play with chemistries means you will get the most [unique and incredible results](#).

Different pattern effects can also be achieved by using a varnish plate with a distinct pattern to it. By creating a reaction with the UV gloss coating and manipulating the dry times, the effects your packaging could feature are limitless.



This coarser reticulation was achieved by manipulating the dry times of this type of reticulated coating (i.e. the time allowed for the varnish and coating to interact).



Reticulating pattern



Reticulating pattern

Off-Press Finishings

Embossing & Debossing

Historically used to make a statement, embossing continues to be an assertion of elegance and luxury. Raising and depressing aspects of your packaging gives your customers a tactile experience. Use a contrasting material in your design to differentiate the surface of your material or bring a character to life. Here are a few embossing and debossing techniques to consider:

- **Sculptured**
This form involves raising or lowering features of a design in a sharp or rounded manner. Sculptured subjects are carefully rendered to depict definition and texture in a realistic manner. Sculptured embossing is often a hand-crafted process.
- **Multi-Level**
Similar to the sculptured process, the multi-level emboss or deboss features several different levels of texture. You will notice multiple angles and three-dimensional definition in this finish.
- **Single-Level**
This style of embossing or debossing uses a single-level instead of multiple layers. It is a very trendy and modern style of finish.



Sculptured emboss/deboss



This is an excellent example of sculptured embossing and debossing that brought the realism of foundation crumbles to the next level.



Single-level emboss/deboss

Foil Stamping

In addition to embossing/debossing, consider foil stamping with foils that come in a wide variety of colors or specialty foil types. A foil stamp can change the entire consumer experience as foil is highly reflective and builds up perceived value of your products.

Hot Foil Stamping

This effect is accomplished with a foil stamping machine that uses a metal plate that has been engraved with an image of the desired design required for the particular application. As the plate strikes a roll of foil film, it causes the foil to adhere to the plate. The metal plate then strikes the substrate that is to be imprinted and transfers the foil onto the area of the document requiring the metallic effect. The result is a document that has a highly reflective image with a bright and dense metallic appearance.

Cold Foil Printing

This is a process that can be done in-line on a press. Using a standard printing plate, an image is printed onto a substrate with the use of a UV-curable cold foil adhesive. A UV dryer then activates the adhesive. The extracted foil is affixed to the printed adhesive and an image is created. Foil that does not adhere to the adhesive is removed.

Metallic Foil

Adding a metallic foil to your design provides variation in texture while starkly highlighting certain brand or graphical elements. Try combining foil with embossing or debossing to add depth to the product. The image on the right is an excellent example of a successful execution of an aggressive and impressive deboss with the use of metallic hot foil stamp. Observing closely, the real craftsmanship came with the ability to hold the adhesion of the hot foil stamp in the very fine areas of the snowflake, especially as a deboss was done as well.



Hot stamped metallic foil with deboss

Foil Stamping

Holographic Foils

Using a holographic foil or rainbow foils gives the package or piece the ability to change color combinations when viewed at different angles. This is a great way to add a pop of color to solid packages. Holographic foils provide a fun and sophisticated flair to product packaging.

Clear Foils

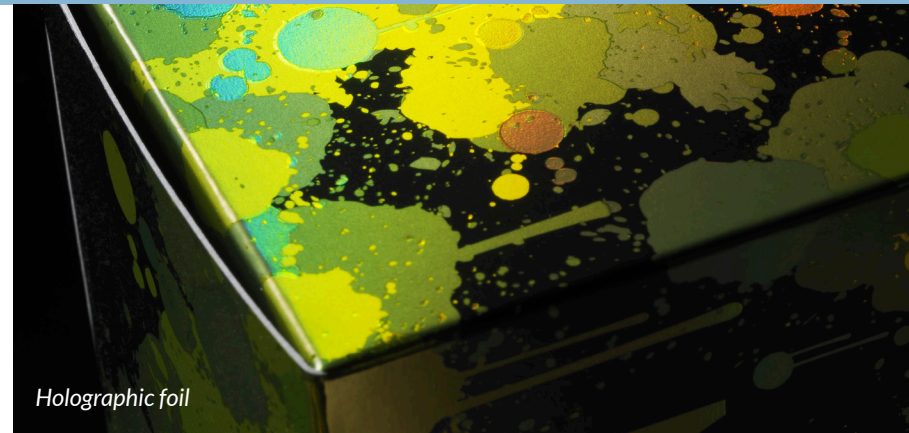
Having clear foils provide high reflectivity, yet allow the printed image to be seen underneath. This is particularly useful for foods, beverages, consumable products and health and beauty offerings. It can also be used to give customers a preview of a new product.

Micro-Etching on Foils

Foils used for security purposes may include geometrical shapes, patterns and even brand logos that shift as the viewer changes focus. Take advantage of the mesmerizing effect by using it in a solid block rather than a border or small stamp.

For security measures, a foil with micro-etching can help prevent counterfeiting of items such as high-value coupons (shown above) that could easily be duplicated, causing retailers major losses as manufacturers will not recompense fraudulent coupons.

Perfect for small or large accents, foil is a beautiful finish to catch customers' eyes.



Holographic foil



The eBay logo and snowflake pattern were done with clear foil and embossed.



Micro-etching on foil

Final Word

With so many press or off-press effects and finishings to choose from, you have the opportunity to create a truly unique package experience for your customer. When faced with an in-store decision, a consumer will always gravitate towards the more visually pleasing and tactilely intriguing package.

Identifying your target market, evaluating competitor packaging, and staying true to your brand identity can all help you develop a packaging solution that will be noticed. Signature textures and coating combinations can help your product pop by encouraging handling and further exploration of your brand.

It's important to remember that we use all of our senses when we shop. Decorative packaging has the potential to sway us from the brands we've turned to for years.

If you're looking to develop unique and eye-catching packaging, JohnsByrne can collaborate with you and guide your decisions on the best press and finishing effects that are right for your project. Our professional team uses cutting-edge technology to provide exceptional products with every order. [Contact us today](#) for more information about how we can help you develop the best packaging for your needs at the very best prices.