



Smooth as silk.

Bringing back this luxury silky feeling
in the packaging industry.

WHITEPAPER





Tactile marketing gets tactical

In an increasingly competitive retail landscape, brands are on the lookout for new ways to achieve meaningful and creative differentiation. It is no longer merely about being able to visualize a brand, but offering consumers a more comprehensive, sensory-rich user experience. Increasingly, brand owners across a wide range of fields are using user-feel and texture to differentiate their products and create connections with consumers. Paper, cardboard, plastic and other forms of packaging can be altered in order to create a "haptic link" (based on the word haptikos in Greek, meaning to be able to grasp or perceive) between buyer and item, by giving the packaging substrate a specific user-feel that is representative of the product it contains.

At the forefront of haptic innovation is the high-end consumer market, including retail segments such as clothing and cosmetics. In fact, according to Mintel's Global New Products Database, 75% of skincare product introductions introduced to the United States market between 2009 and 2013 featured tactile packaging. Stolichnaya Vodka, BMW, Royal Caribbean, and Truvia are among the many luxury brands to have integrated haptic marketing tactics into their advertising campaigns in recent years.



Soft touch-friendly coatings

A Scientific link

This significant new development owes to science's increased understanding of the importance of "haptic perception" – i.e. the act of exploring and identifying objects by how they feel to the touch.

Research has shown that the act of "getting to know" a product in this way increases the sense of perceived ownership, meaning that the consumer is more likely to want to possess a product if they like the way it feels in their hands. Indeed, several scientific studies have highlighted the marketing value of adding a 'touch' experience to packaging applications. Specifically, a recent research project conducted by California Polytechnic State University delivered statistical

evidence of consumers of cosmetics products preferring Soft Touch and Hi Rise coatings-based packaging over packaging without added tactile benefits.

Moreover, the study cohort also indicated that they would be willing to accept a 5% price premium for products that were packaged with soft touch-friendly coatings. The research clearly demonstrates the added advantages of tactile packaging solutions in employer branding, particularly within the luxury and high-end consumer goods segments.



How the right coating adds value

With a growing understanding of the benefits of haptic perception, retailers have been able to manipulate and accentuate the marketing benefits of product packaging.

Paper, cardboard, plastic and other forms of packaging can be altered in order to create a “haptic link” between the item and the shopper, by giving the substrate a specific user-feel that is representative of the item inside.

Plastics

You can use **Skins®** on a range of plastic substrates including PE, PET, PA and PP.



Traditionally, the addition of a tactile quality to paper of packaging has performed during the latter stages of production through embossing.

This method is often expensive and time-consuming to execute, adding considerably to the overall cost of products and prohibiting the mass market potential of items. A more efficient way of producing touch-feel products involves using specially engineered coating applications to the packaging as part of the original production process. In this way, retailers are able to take a generic “off-the-shelf” plastic or carton container and then add a bespoke coating layer to create the desired sensory experience. Rather than simply using additives to alter the surface quality of the coating, this alteration can be performed more effectively – and sustainably – a raw material level, through the coating resin. This is the technology behind Covestro’s **Skins®** series of resins, a portfolio of specially engineered binders, each offering a different touch sensation when applied to a substrate.

Right kind of touch

User-feel coating resins have a clear objective: to strengthen the link between a product and its packaging. Specifically, the coating needs to trigger the right kind of emotional response in the end-user, one that is reflective of the item itself.

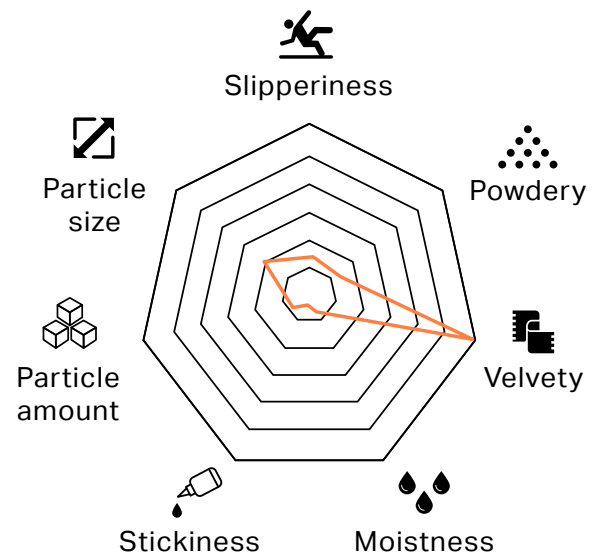
For example, a silky touch helps to create an association with luxury cosmetics but offers little value to the marketing of a high-end motorcycle brand. Creating an authentic haptic link that speaks to specific target consumer groups has long proved challenging, particularly in mass-production environments, where large volumes of produce are being manufactured.

However, recent coating technology advancements are now enabling retailers to fine-tune the type of sensory experience that can be delivered through product packaging, forming a more accurate link between the packaging surface and the product inside.



10,000
packaging units every hour.

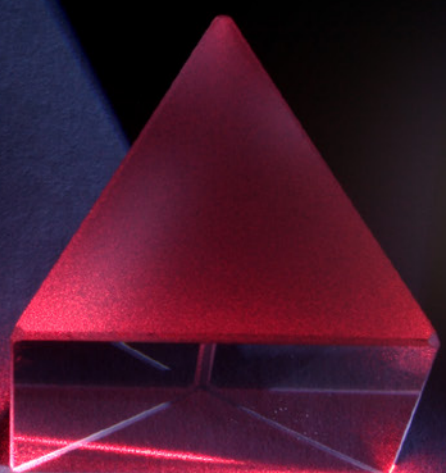
Covestro has played a central role in this innovative field. Over the past five years, we have developed a mathematical system to connect specific materials with the development of precisely tailored user-feel coating resins. A key component of this project is our 'skinovation' feel panel, which consists of 15 members of the Covestro Haptics team. The members map the specific haptic qualities of more than a thousand different materials, analyzing them based on a range of specific tactile properties, including modulus, surface roughness, coefficient of friction, and heat conductivity.



Their analysis is then used to accurately recreate the specific user-feel qualities of different materials through the development of specially designed coating resins. Working closely with printers and converters, Covestro has tested its **Skins®** range extensively to ensure that each of the resins transfers the right, high-quality sensory experience to substrates.

Importantly, our resins are suitable for high-volume manufacturing environments, where coatings are applied to 10,000 packaging units every hour.

Silk: A by-word for luxury

A red triangular prism is positioned on a dark, reflective surface. It refracts a beam of light, creating a spectrum of colors (red, orange, yellow, green, blue, purple) that spreads out across the surface. The background is dark, and the lighting is dramatic, highlighting the prism and the refracted light.

The luxury goods segment is one of the biggest users of haptic coating solutions. Brands owners of skincare, perfume and make-up applications, in particular, recognize the added value of packaging that conveys a sense of luxury and indulgence. This is where silk comes in. Produced by the mulberry silkworm, silk is a natural protein fiber that was first discovered in Ancient China more than 8,000 years ago. Its unique, triangular prism-like structure refracts incoming light at different angles, producing different colors, and a unique, shiny quality that immediately signified luxury and indulgence. Used in clothing, as well as fans, furnishings and a wide range of decorative items, it wasn't long before silk cloth was in high demand across the known world. By the time of the Han dynasty, the Silk Road had become the World's leading trading route, stretching from Southeast Asia to Southern Europe. Such was its worth, silk found its way into use as an official form of compensation in government in high-society circles.

Today, consumers craving for silk is stronger than ever.

Today, consumers' craving for silk is stronger than ever. From clothing to bed linen, drapery and beyond, silk remains the material of choice in the luxury high-end consumer segment. However, textiles are not the only product area where silk adds value. In fact, one of the earliest applications of silk in Ancient China was as an alternative to bamboo as a form of writing paper. In particular, silk-based paper, with its sensuous feel, was used for illustrations in famous books and poems.

In the era of industrialized paper production, the complexity and high cost of silk production has seen silk disappear from modern paper manufacturing processes almost entirely. Bringing back this luxury silky paper feeling provides an opportunity for the paper and packaging industry to

offer new, heightened user experiences. With the recent progression in coating technology, and specifically user-feel coatings, there has been a natural progression toward there development of coating applications that can provide packaging substrates with an authentic silky texture.

AgiSyn™ 248 is a recent addition to our **Skins®** portfolio of "feel" resins. Also known as Silky UV, it delivers an authentic, silky feel to various different packaging substrates. In particular, coatings based on Silky UV can be applied to luxury paper packaging as well as packaging laminating and vanish, cardboard and corrugated packaging.

Silky UV: New advancements in packaging



Digital marketing and haptics: Thinking outside the box

Like their traditional marketing counterparts, digital marketers are starting to tap into the vast potential of haptics by integrating touch into their content to improve user experiences and brand engagements.

The electronics industry has already begun experimenting with haptic technology through devices like video game controllers that vibrate, or smart watches that deliver notifications to wearers by sending gentle vibrations through the wrist. This is just the start: as the retail industry moves increasingly online, there is a growing need for

intelligent virtual marketing solutions. In particular, digital retailers are looking for ways to maximize the 'unboxing' experience – so that a product ordered over the web can deliver the same level of engagement as an item purchased in a traditional store environment.

In short, in an era of increasingly distanced retailer-consumer relationships, touch-feel coatings can help to strengthen the impact of items purchased in a virtual environment, heightening the emotional connection between consumer and brand.

The (silk) road ahead

While the relationship between consumers and silk dates back many thousands of years, the connection as strong as it's ever been. In fact, when it comes to leveraging the potential of silk-feel coatings, we are only at the start of a new journey.

The current advancements in silk-feel and other new-generation tactile coating solutions are paving the way for new developments in tactile-based marketing. It is an era where luxury retailers and brand owners are able to maintain robust, long-lasting engagement with consumers on a mass-market scale in ways that are cost-effective for both parties. As the popularity of online shopping grows rapidly, retailers no longer have to sacrifice brand engagement and user-experience, and can have strong, physical connections with consumers all over the world. Moreover, these connections can be built in the right way for people and the planet, with sustainable packaging that meets the need for more resourceful, environmentally friendly solutions. The Silk Road of the Han dynasty may long be behind us, but an exciting new era lies ahead.

Would you like to get advice on Silk-feels? I am happy to help you out.

Kind Regards,



Jacqueline Revet

Project Innovation Manager,
Haptic Coatings



Carton

Whether it's for a gift box, subscription box or e-commerce packaging, adding **Skins®** to a carton box design is an effective way to improve the customer unboxing experience.



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¹Please see the "Guidance on Use of Covestro Products in a Medical Application" document.
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