

Leonhard Kurz presents innovations in plastic decoration at CES 2021

Fürth/Germany, 1/1/2021: Leonhard Kurz will once again be presenting innovations in the field of plastic decoration at this year's all-digital CES innovation show, which will take place online due to the coronavirus pandemic.

The company is literally breaking new ground at CES: Under the name *New Ground*, Kurz is presenting an antibacterial surface treatment and metallization options with indium. This makes it easy to equip devices with the new 5G mobile phone standard. A patented technology, which enables surfaces to be equipped with haptic effects using digital printing, will also be presented for the first time to a wide audience.

This year's Kurz presentation at the world's largest technology trade fair CES will take place under the theme *Earth Attraction*. It addresses sustainability and at the same time highly effective product solutions for a wide range of industries in different ways. The innovation focus at CES is on the Consumer Electronics and Automotive sectors.

BIOFENSE surfaces with anti-bacterial effect

Spurred on by the global pandemic, demand for surface finishes that eliminate bacteria and viruses continues to rise sharply. A development that Kurz is responding to this year with the innovative BIOFENSE process. Another innovation has been added to the In-Mold Decoration (IMD) process already in use, which ensures an antibacterial effect with a long-term impact on plastic surfaces. This was confirmed by the Fraunhofer Institute in accordance with ISO 22196. IMD technology combines two process steps (injection molding of the component and subsequent decoration) into one and is already used in many industries.

The new anti-bacterial surface finish should be used in the future on various everyday products, such as notebooks, mobile phones or light switches, as these have a high bacterial density due to frequent touching. The same applies to surfaces in the interior of vehicles: Touch displays, and instrument panels can also be equipped with the new IMD BIOFENSE surface.

Metalization with indium – environmentally friendly and effective

The metallization options based on chrome, aluminum or tin, which are also offered by Kurz, are now being expanded to include the indium option. The advantages are plain to see: On the one hand, the new indium decoration more accurately matches the color shade of hard chrome, which is traditionally achieved through electroplating, but the PVD process used makes it much more environmentally friendly and less harmful to health during processing. On the other hand, the new process meets all technical requirements of the automotive industry and is suitable for use in exterior and interior areas. The fact that indium is permeable to radar and 5G beams further expands the scope of application. For automobile manufacturers, this product feature is just as important given the concepts of autonomous driving. The same is true for manufacturers of consumer electronics who want to serve the trend towards smart consumer products equipped with antenna technology, such as mobile phones, tablets or, for example, loudspeakers.



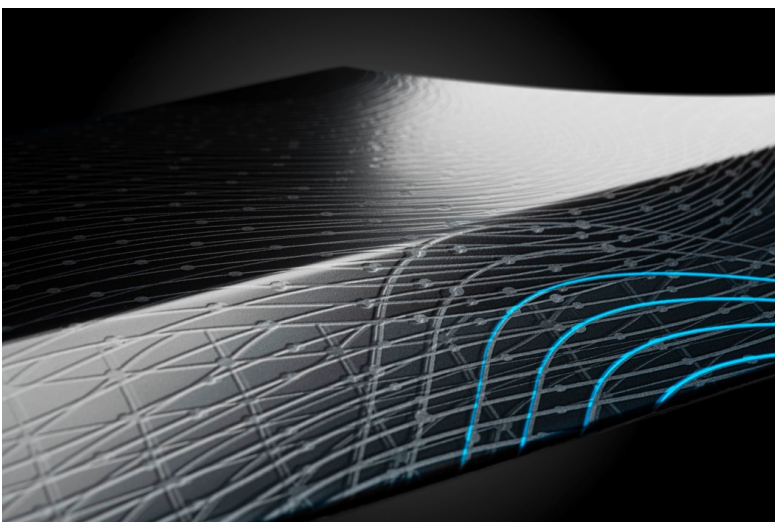
Indium decoration in combination with colored designs is also possible. Shown here with the Deepwave design. The surface is resistant to corrosion, UV light and abrasion. The Kurz innovation with indium is much more environmentally friendly than conventional electroplating.
(photo: Kurz)

Kurz innovation makes it possible to reconcile the technical progress of electronic products with 5G support and the visual enhancement through metallization.

There are no limits to individualization: Indium is suitable for high-gloss surfaces as well as matte, semi-matte and brushed designs, can be combined with patterns, can be backlit and is therefore suitable for Shy Tech designs. This makes the innovation a true all-rounder in the metallization of plastic surfaces.

Modernity you can feel - the Kurz tactile feel thanks to digital printing

With this new process, Kurz makes the digital reality tangible: In future, it will be possible to transfer tactile structures to plastic surfaces through digital printing, thanks to IMD decoration. By using both sides of the carrier film in this patented process, the established Kurz decorative surfaces and the structure can be transferred in one process step without influencing the outstanding performance of the surface protection (protective layer). The additional use of digital printing technology enables the individualization of end products, even for smaller quantities, paired with the efficiency of the IMD process.



(Image caption:) In just two process steps, paint layers are applied to the front and structures are applied to the back of the PET carrier via digital printing. During the injection molding process, these structures are not only visible, but also noticeable - the unmistakable Kurz feel is created.
(photo: Kurz)

Inspire users and protect the environment

The three *New Ground* innovations - BIOFENSE, indium decoration and haptic effects through additional digital printing are all more sustainable and thus more environmentally friendly end products than other manufacturing processes.

"We always focus on customer benefit and sustainability when developing new decoration solutions. All three innovations have this in common. They speed up processes, increase the quality of the end product and significantly improve product properties", explains Dr. Thomas Komenda, Head of Kurz Business Area Plastic Decoration, Innovation and R&D.

BIOFENSE technology ensures that products are coated with a long-lasting antibacterial coating. With the metallization option with indium, highly toxic substances can be completely eliminated compared to electroplating, which not only increases the safety of employees and significantly reduces the impact on the environment in production, but also ensures problem-free recyclability after the product life cycle. The new manufacturing process of haptic effects through digital printing in the IMD process makes it possible to achieve the desired result in just one work step and thus work even more energy-efficiently.

Parallel to the CES online trade fair appearance, Kurz will also provide information about the innovations on an additional landing page of the website <https://www.plastic-decoration.com/CES>. 3D visualizations and videos illustrate the exact details there.

About the company: The KURZ Group is a leading international company in hot-stamping and thin film technology. KURZ develops and produces decorative and functional layers applied to carrier foil for different industries, from the packaging and printing industry to the automotive sector and the electronics, card, and textile branches. KURZ supplies an extensive range of products for surface finishing, decoration, labeling, and protection against forgery, complemented by a comprehensive range of stamping presses and stamping tools. It also invests continuously in new technologies, and develops innovative solutions for integrating functions into surfaces. The KURZ Group has more than 5,500

employees at over 30 sites worldwide, and produces under standardized quality and environmental standards in Europe, Asia and the USA. A global network of subsidiaries, representatives, and sales offices ensures short paths and individual, on-site consulting.

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