

K 2022: Innovative and sustainable solutions for automotive interior and exterior design from KURZ

Fürth/Germany, 09/08/2022: From October 19 to 26, 2022, Düsseldorf will host K 2022, an international trade fair that is regarded as the industry meeting place for industrial plastics processing. Under the theme 'Making every product unique,' LEONHARD KURZ will be presenting innovative and sustainable solutions at Stand A19 in Hall 5.

“All products and processes from the automotive sector that we will be presenting at K 2022 are strongly geared towards megatrends such as electromobility and autonomous driving,” emphasizes Rainer Süßmann, Head of Business Area Plastic Decoration at LEONHARD KURZ. “At this leading trade fair, we want to bring our comprehensive expertise in pioneering surface and component solutions for exteriors and interiors to life. The combined knowledge within our group of companies enables us to provide comprehensive consulting services and develop holistic solutions.”

The technologies and solutions of several KURZ subsidiaries will play a major role at K 2022. These include surfaces with Shy Tech designs from BURG DESIGN, integrated, wafer-thin touch sensors from PolyIC, and the innovative tool and process technology from Schöfer GmbH. Innovative hot-stamping machines from BAIER will also be on display, which make it possible to equip surfaces with highly efficient sensor technology (In-Mold Electronics - IME) directly in the injection molding process and to decorate them with IMD UNIFY directly during injection molding. In addition, numerous samples will be produced, finished, or equipped with touch functions at the stands of various partner companies as part of live demonstrations.

Here are some of KURZ's trade fair highlights:

Live production of an automotive exterior component at the stand

The expert in innovative plastic surface solutions from Fürth will produce a rear-end cover at its own trade fair stand, including touch control options and backlighting - live on site on an injection molding machine from ENGEL. Two different plastics in the component ensure both radiolucency and stability, which offers optimal conditions for use as a rear-mounted technical element. The perfectly matched plastic components do not impair recyclability but can be fed back into the cycle as a compound. "The innovative one-step process enables the creation of three different design areas in one step. Furthermore, the use of various film surfaces ensures a high level of design variability with a wide range of backlighting effects - for example, for individual 3D lighting effects in the rear light area or integrated touch operation. This production process is also highly efficient and thus significantly reduces CO₂ emissions," explains Martin Hahn, Head of Application, Technology & Innovation at LEONHARD KURZ's Business Area Plastic Decoration. "With our in-depth expertise in process and tool technology, we cover the areas of decoration, function, and process technology holistically in this innovative production approach." Corresponding sensors are installed in the exhibited rear application demonstration device.

Electric charging station with smart touch function

Through the use of various consistent finishing processes, KURZ technologies offer a large variety of customer-specific variants in the design and manufacturing process. One example of this is the pioneering Wallbox, whose functional front panel is produced live in the IMD process at the Sumitomo (SHI) Demag partner stand. With partial lighting and the optional integration of sensors and a display, the electric charging station demonstrates the possibilities in the design of smart charging technology in the electromobility sector. The augmented reality demonstration of the product concept at the KURZ stand is particularly innovative. Visitors can select different designs and finishing techniques via an app and then receive a virtual representation of the individualized Wallbox in the relevant environment.

Cooperation between KURZ and lighting specialist MENTOR

Together with MENTOR, the specialist for integrated lighting solutions, KURZ has optimized the combination of light technology and surface decoration so that light

designs can now be implemented without any color shifts. Thanks to a tried-and-tested RGB algorithm, company-specific corporate identity colors can be used in components with full color fidelity. Light and surface design merge to create an innovative, futuristic design with fantastic effects and a high degree of customization. With multiple brightness levels, designs can be realized with impressive depth. Moving motifs are also possible, making them a very special eye-catcher. Due to the reduced number of LEDs and the lower paint application required in the process, resources are used much more efficiently, and CO₂ emissions are lower than with conventional processes. “With KURZ and MENTOR, two experts combine their many years of experience and technical expertise. Our customers benefit from perfectly coordinated, efficient solutions with fast design development and implementation as well as reliable technologies according to the latest standards,” says Rainer Süßmann, Head of Business Area Plastic Decoration at LEONHARD KURZ.

Badge design for the vehicles of tomorrow

Components for the autonomous car of the future are, among other things, radar-compatible and 5G-capable. KURZ will be presenting an exterior component in the form of an automotive design badge for the front or rear of a vehicle at K 2022. The badge is manufactured using the IMD process (In-Mold Decoration) and can be color-coordinated according to customer specifications; indium metallization provides effective surface finishing and is a sustainable and cost-effective alternative to electroplating. KURZ component solutions offer a range of designs and functions that are virtually limitless thanks to greater transparency for backlighting than competing processes. Compared to competitive processes such as varnishing, the IMD process is significantly more economical and environmentally friendly. “The injection molding process and the decoration process are combined in a single highly efficient work step, which not only saves costs and time, but also leads to a significant CO₂ reduction. The IMD process also enables the component to be used as a recycled material.

Smart Crystal Panel in cooperation with Swarovski Mobility

‘Making every product unique’ - KURZ has also achieved this with the Smart Crystal Panel, which was developed in cooperation with Swarovski Mobility and

the KURZ subsidiaries BURG DESIGN and PolyIC. The HMI (Human-Machine Interface) component received a 'Special Mention' in the 'Mobility & Innovation - Smart & Digital' category of the Automotive Brand Contest 2022. It not only visually enhances the interior of vehicles in the luxury segment, but also offers smart functionality for intuitive operation. The competencies of the solution partners complement each other perfectly: Design and decoration technology from BURG DESIGN with Shy Tech function, highly transparent sensor technology from KURZ subsidiary PolyIC, and handmade, touch-enabled crystals from Swarovski. The PMD (Print Mold Design) process has created a component that brings real glamor to the vehicle interior through multiple variants with color-coordinated crystals. The crystals not only impress with their depth effect and reflections, but also with their unusual, exciting feel. The backlighting and holographic effects of the crystals created through inserted pictograms visually enhance the cockpit. In addition, the designers' creative freedom - including day-night designs, various light and color effects, sustainable indium-based metallization, and real carbon looks - is virtually boundless.

Metal combinations for new decoration possibilities

KURZ is also presenting a development innovation that enables unprecedented metallization designs with different color variations and gradients. The combination of copper with chrome, indium, or tin and the reaction of the respective metals creates an absolute design innovation with an extraordinary patina effect. KURZ's innovative metallization designs are suitable for various processes and can be 3D-deformed as well as backlit. Additional enhancements are possible in the form of Shy Tech functionality, haptic and matte/gloss effects, and KURZ BIOFENSE® (long-term antibacterial hygiene protection). The proven KURZ thin-film technology maintains the recyclability of the components and, in conjunction with recyclates as a possible base material, results in a truly sustainable product.

At a glance

K 2022 from October 19-26, 2022

LEONHARD KURZ Stiftung & Co. KG: Hall 5, Stand A19

Product group: Machines and equipment for finishing, decorating, printing, and marking plastic components

Trade fair presentation focuses on: Automotive interior/exterior, consumer electronics, home appliances, sustainability

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About KURZ: The KURZ Group is a global leader in thin film technology. KURZ develops and manufactures decorative and functional layers applied to carrier foil for a wide range of industries, from the packaging and printing industry through to the automotive, electronics, card and textile sectors. KURZ offers a comprehensive portfolio of products for surface finishing, decoration, labeling, and counterfeit protection, rounded off by an extensive range of stamping machines and stamping tools. The company is also continuously investing in new technologies and developing innovative solutions for integrating functionality 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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