KURZ

Two designs plus functional integration in one shot

Fürth/Germany, 1 October 2018: Leonhard Kurz has developed a foil feeding unit for In-Mold Decoration (IMD) with two independently positionable foil webs. Using the patent pending IMD SI DUO feeding unit, it is possible to produce two plastic components with different single-image designs in one shot. At the KraussMaffei booth at Fakuma, two components will be manufactured on a PX 320 fully electric injection molding machine and individually decorated with the help of the IMD SI DUO. A touch sensor from the Kurz subsidiary PolyIC will simultaneously be integrated into one of the components by means of In-Mold Labelling (IML). KraussMaffei and Kurz will demonstrate an unprecedented level of IMD process rationalization with this live application.

Non-identical twins

In the injection molding process shown at Fakuma, two very differently decorated plastic parts will be ejected from the mold at the same time. One of the components has a dead front effect with a homogeneous black surface in the day design, and a backlit touch panel in the night design. The second plastic part exhibits a transparent display window with scratch-resistant top coat that is framed by a gray design in an unusual concrete look. Furthermore, the necessary sensor electronics for the touch display functionality have been applied to the rear of the component using Kurz's IML functional integration technology.

Sensor detection of foil registration marks

To produce the two single-image designs, precise alignment within the injection mold is essential. The IMD SI DUO is therefore equipped with sensors that read the registration marks on the IMD foil. Mounted on the outer sides of each of the two foil tracks are a pair of sensor blocks for the X and Y direction that ensure a positioning accuracy of a few hundredths of a millimeter in both directions. The two parallel foil webs are positioned independently within each cavity of the two-cavity mold on the ejection side. At the same time, the sensor labels are inserted

---

on the nozzle side of the mold in one of the cavities using robotics technology from KraussMaffei. The mold closes, the melt is injected, the two designs are permanently bonded to the outside of the respective parts, and the sensor with the HMI display part is permanently bonded to the inside of one of the parts. This fully automatic injection molding process, for which Kurz is delivering the process and mold technology, can be seen live at KraussMaffei's Fakuma booth A7-7303.

□□□

Two plastic parts with different single-image designs produced in one shot with the help of the IMD SI DUO foil feeding unit from Kurz

(Photo: Kurz)

□□□

About KURZ: The KURZ Group is a global leader in hot stamping and coating technology. KURZ develops and manufactures decorative and functional layers applied to carrier foils for a large variety of applications. The range includes metallized, pigmented and holographic stamping foils for packaging or print products, surface finishes for electronic devices or automotive parts, protective and decorative lacquers for furniture or household appliances, authenticity features for brand name items, metallic applications for textiles, and different types of coatings for many other applications. With over 5,000 employees in 14 production plants in Europe, Asia and the USA, 24 international subsidiaries and a global network of agencies and sales offices, the KURZ Group manufactures and sells a

comprehensive range of products for surface finishing, decoration, marking and counterfeit protection, rounded off by an extensive range of stamping machines and stamping tools. KURZ also continuously invests in new technologies, and is developing innovative solutions for integrating functionality into surfaces.

www.kurz.de
www.plastic-decoration.com

<u>Press Contact:</u>

Lucie Mengel
LEONHARD KURZ Stiftung & Co. KG
Schwabacher Straße 482, 90763 Fürth/Germany
Phone: +49 911 71 41-96 38, Fax: +49 911 71 41-96 40
E-Mail: lucie.mengel@kurz.de
www.kurz.de