Inline application of metallic designs on glass and plastic

New coating process opens up extensive design possibilities for the decoration of glass and plastic containers

Fürth/Germany, 13 November 2014: The manufacturer of functional and decorative coatings Leonhard Kurz has jointly developed with the machine manufacturer Isimat a process for transferring metallic layers onto glass and plastic cylinders. The process has been named inline foiling and is patent pending. Inline foiling allows the inline application of metallic designs to cylindrical containers like plastic tubes, glass bottles or drinking glasses during the silk-screen or flexographic printing process. This is achieved by integrating an inline foiling unit into the multi-station printing machine.

The inline foiling process involves three steps: First a UV adhesive that has been especially developed for this process is applied to the cylindrical part. In the second step the part to be decorated is rolled underneath a specially developed foil and at the same time the adhesive is cured by UV light. The metallic layer of the foil adheres only to those areas where the adhesive was applied, the rest remains on the carrier foil, which is wound up again. In the third step the part is overprinted and over-lacquered by means of multi-color silk-screen or flexographic printing.

The adhesive application, foil coating and lacquering operations are all integrated into the inline printing process, thereby enabling the decoration to be performed at high speed. The inline foiling process requires no stamping dies, which reduces lead times and costs. Furthermore, the setup times are only marginally longer than the make-ready times for silk-screen printing, and a foil changeover can be completed in around 15 minutes.

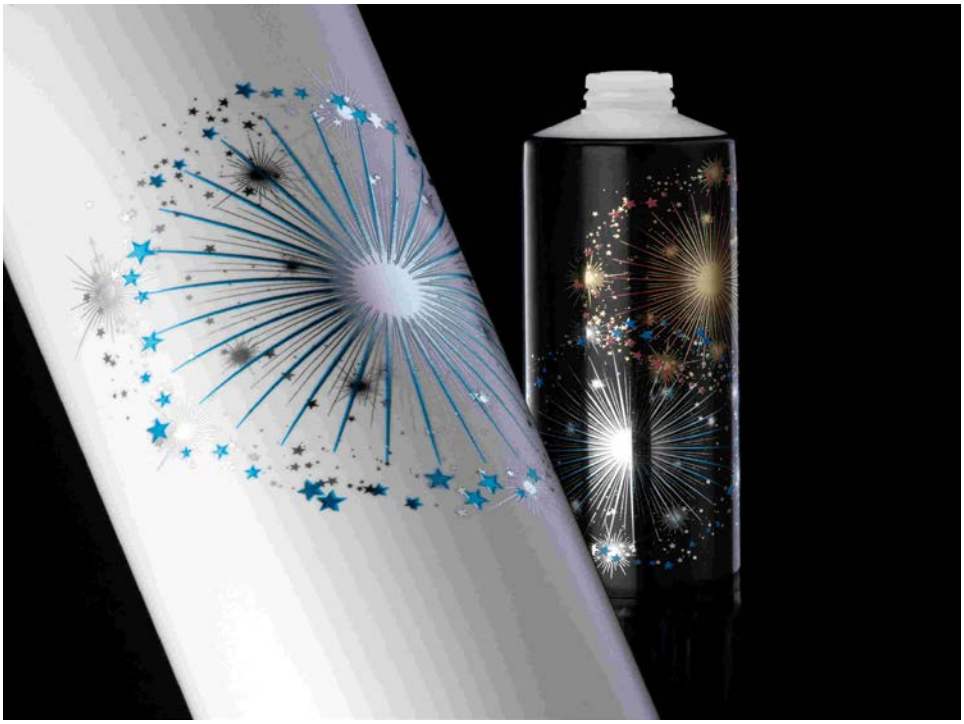
Efficient process for obtaining a refined look

Inline foiling decoration does not require the action of pressure or temperature, so it is fast and economical with low scrap rates. At the same time the process enables an especially high-quality finish to be achieved. The direct-coating operation delivers a seamless and permanent decoration with a significantly higher quality finish than decals or labels. The true-metal coating achieves a high gloss level and gives the appearance of a valuable precious metal. The base color of the inline foiling coating is silver, which enables a variety of gold hues and a multitude of radiant metallic colors to be produced by overprinting.

Holographic foils in dazzling rainbow colors or diffractive designs can also be produced for this process.

The inline foiling occurs in register with the printing thereby ensuring high register accuracy. The design options are practically limitless, with both large-area designs and filigree lettering or fine cutouts being possible. It is also possible to produce half-tone images by inline foiling. The new process opens up previously unimaginable design possibilities for packaging and product designers. Striking metallic designs, gold lettering and glitter and gloss effects can all be achieved cost-effectively and with high visual quality. With its inline foiling technology Kurz intends to satisfy the increasing demand for high-quality packaging refinement. Inline foiling delivers to the glass and plastics sector the product finishing capabilities that were previously only available for paper and cardboard applications.

For further information on this process, visit www.inline-foiling.com.



Plastic container decorated using the inline foiling process

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 4,500 employees in eleven production plants in Europe, Asia and the USA, 23 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.

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