

Marabu: Glasstec 2016 highlights

At Glasstec 2016, Marabu showcased a variety of inks ideally suited to the needs of the glass industry – for screen, digital, and pad printing. Stand-out exhibits at the company's stand included glassware decorated with visual and tactile effects. There was strong interest in the new ink products on display, and in the corresponding wide range of applications.



Tamm, Germany, 5th October 2016 – The Glasstec trade fair attracted an international audience keen to discuss an old but still highly useful material: glass. Marabu presented a broad portfolio of ink products for this industry, ranging from a new high-gloss silver from the Ultra Glass UVGL line, to a thick-film (tactile) coating, to pad-printing and digital applications. The Marabu Special Edition Beer Glass, which demonstrated the possibilities of the high-gloss silver ink in conjunction with the thick-film coating, proved particularly popular with stand visitors.

UV ink for glass – high-gloss silver creates an opulent look and feel

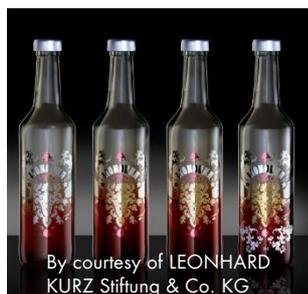
Until now, the glass industry has obtained high-gloss gold and silver effects using ceramic inks. However, these are expensive, and the baking process often generates high energy costs. In Duesseldorf, Marabu presented a very promising alternative – a high-gloss silver from its Ultra Glass UVGL range. This print-ready product is coated with a high-transparent, silicone-free UVGL-WV base coat. The silver ink further expands the range's broad colour spectrum, and lends an exclusive look and feel to container glass, such as drinking glasses, bottles and flasks, and to flat-glass products such as mirrors or cupboard doors. In short, it opens up a wealth of possibilities for glass manufacturers. And, in addition to applying a higher sheen to glass products, it protects them from abrasion. In a stress test in an industrial dishwasher, the finish sustained no damage after 1,500 wash cycles, and was graded "very good". High-gloss UVGL silver is particularly valuable in screen printing, as it has many applications and is economical to use.

An exceptional look, an exceptional feel – tactile effect with thick-film coating



It is now easier than ever to create tactile glass decorations – thanks to the two-component UVGL line of inks. The first step is to screen print a visual image onto the container or flatware. This is then overprinted by a thick-film layer of exactly the same shape, and subsequently cured by UV light. The ratio between the two components can be tailored to specific needs, giving customers flexibility in terms of the image they wish to create – with fine details or broader, thicker elements.

InLINE FOILING® with UV-curable base coat for elegant glass decorations



This recently developed finishing method attracted a great deal of attention at the trade show. Transferring a high-gloss foil to container glass prepares the substrate for the application of Marabu's decorative top coatings, available in many shades. In the second (in-line) process step, top coatings are applied by UV screen printing. The result is sparkling metallic finishes in exceptionally vibrant colours. This method makes it possible to realistically mimic gleaming metal, the reflective surface of water, or the reflections created by glass. When the standard silver foil is overprinted with the brilliant UVGL-WV basis top coat, virtually any shade can be achieved by adding coloured ink.

Hot stamping with UV inks continues to catch the eye



Many discussions with industry professionals at Glasstec focused on hot stamping – underlying the enduring popularity and versatility of this finishing method. The required image or text is screen printed onto the glass surface with Ultra Glass UVGL primer, serving as a type of cliché for the hot foil. The foil is transferred onto the pre-printed ink film, either through roll-on stamping or vertical stamping – the foil only adheres to the areas that were primed with UVGL. The result is a high-gloss gold and silver finish.

Automotive industry applications and touch panels

Touch panels combine glass and electronics to create attractive user interfaces, for example for the control of heating, lighting, medical devices and much more. In particular, glass creates a highly durable and dirt-resistant surface. Trade fair visitors showed significant interest in printing methods for these key components. UV-curable and solvent-based inks, such as Marabu's Ultra Glass UVGL and Mara® Glass MGL lines are ideal solutions. Both these screen printing products offer excellent adhesion and high resistance to alcohol, extreme temperatures and chemicals. Overall, organic inks are in ever greater demand, for example in the automotive industry. A key application in this context is screen printing of PVB interlayers for laminated safety glass.

Solvent-based inks for high-quality pad printing of glassware



Glasstec witnessed Marabu's unveiling of its new Tampa® Glass TPGL four-colour ink system, which is suitable for a wide variety of applications. The key strengths of this pioneering product are its glass-friendly recipe, guaranteeing excellent ink flow and outstanding adhesion. It also has high mechanical and chemical resistance, making it ideal for water-based liquids and other typical contents of bottles and glass containers. The result is a print that is of

consistently high quality. Moreover, the ink dries quickly and there is a broad choice of colours, enabling highly efficient production.

Digital printing with liquid coatings creates special effects on glass



At Glasstec 2016, Marabu was presenting the numerous possible applications of digital direct UV printing – with a clear focus on customisable digital printing on glass. Glass substrates can be prepared for roller-coating of customised designs with the *Mara® Shield UV-PGL* primer. This primer enables standard UV digital printing inks to adhere to glass.

Because no special glass inks are required, manufacturers enjoy total flexibility in their choice of design. Finishes with a unique sheen can be achieved using a white blocking layer. This is applied by the same coating method with a high-coverage *Mara® Shield UV-CGL white*. The process guarantees excellent opacity and a completely even blocking layer.

In addition, *Mara® Shield UV-CGL* inks can be used for full coverage of glass surfaces with the help of liquid coatings. A wide variety of finishes and special effects (metallic inks, interference inks) can be achieved. The ability to produce custom colours makes this application highly attractive to kitchen and furniture component suppliers. They benefit from the huge range of shades, and the possibility of letting customers select any colour – from the Pantone, RAL or HKS systems, for example.

Marabu GmbH & Co. KG



Marabu is a leading global manufacturer of liquid coatings and screen, digital, and pad inks with headquarters near Stuttgart, Germany. Marabu's track record of innovation stretches back to 1859, featuring many industry-first solutions for both industrial applications and graphic design. With its 14

subsidiaries and exclusive distribution partners, Marabu offers high-quality products and customer-specific services in more than 80 countries. Exceptional technical support, hands-on customer training, and environmental protection are core elements of its corporate philosophy. Sustainable business practices are also key to Marabu's vision. These have been implemented through a number of initiatives, with concrete results – and the company is committed to maintaining this course of action in future. Marabu has been certified to ISO 9001 since 1995 and to ISO 14001 since 2003.