

Press information from the Hönle group
about the Bondexpo from 21 to 24 September 2009 in Stuttgart, Stand 7504

Bonding Metals – Innovative Panacol Adhesives and Hönle UV Technology

Steinbach, August 2009. “Universal metal bonding” is at the heart of this year’s presentation of the Hönle group and its adhesives specialist Panacol at the Bondexpo in Stuttgart (21 to 24 September, Stand 7504). Highlights include Panacol’s professional multipurpose metal bonding ranges **Penloc®** and **Structalit®**, including several new products as well as accessories for high-strength bonds. In addition, the Hönle group will present adhesives and sealants as well as UV equipment, UV LED lamps and floods with a focus on metal–glass bonds – the **Vitralit® system**.

Bonding metals with Penloc® and Structalit®

Penloc® and **Structalit®** are tried-and-tested product series from adhesives specialist Panacol. Suitable for bonding metals and other materials, they fulfil all requirements of modern joining technology while being easy to handle and use (*bead-on-bead*) and fast-curing. Initial strengths are achieved after only two to five minutes. Bonding is undoubtedly an ideal modern alternative to conventional joining methods. With today’s wide range of materials – which includes sensitive metals such as stainless steel, aluminium and alloys – and modern surface coatings, welding is often no longer the first choice. Bonding is also better able to meet the growing

demand for an appealing visual appearance of joints. In addition to offering the same strength as welded joints, the epoxy resins of the **Structalit®** range have stress-equalising properties and save both time and costs in their application. The wide range of applications of **Structalit®** includes bonding in the trade and crafts sector, encapsulation of electronic components and high-tech electronics applications.

The all-purpose acrylic-based adhesives of the **Penloc®** family can join metals both with metals and with other hard, nonporous materials. They are generally suitable for all hard, non-porous materials. Their wide range of applications includes bonding corner brackets to window frames, roof racks or bushing bonds, sensor housings, electric motor magnets, lipsticks, metals with high temperature strain (GT-HT) and PMMA presentation displays.

This wide range of applications is made possible by the highly specific properties of each **Penloc®** product: **Penloc® GTI** and **Penloc® GT-AP**, for example, achieve a high force transmission under dynamic loading and have a low and a high flash point respectively. **Penloc® GTH-T** joins metals to ceramics and is suitable for FR4. **Penloc® GT-AP** is unique on the market in being almost odour-free.

Metal-to-glass bonding with UV LED technology

The fusion of Panacol's chemical products and Hönle AG's innovative curing machines and equipment makes the Hönle group a unique system supplier on the adhesives market. In addition to its proven UV hand lamps and point sources the globally successful supplier of industrial UV technology is presenting its latest developments in the field of UV LED lamps at Bondexpo 2009. Following the show-stopping success of last year's **bluepoint LED** – developed on from the bluepoint –,

Hönle's R&D activities have continued to focus on the progressive UV LED segment. One result of these efforts is the high-performance array **LED Powerline**, which is ideal for curing UV-reactive adhesives and sealants. With its low weight and small size of only 88 × 20 × 50 mm, this innovative unit can be installed in very small spaces. The water-cooled array is also suitable for use in cleanrooms.

Hönle's latest development is the **LED Spot**, which combines the usual advantages of LED technology – such as an extremely long lamp service life and simple handling – with a homogeneous illumination of larger surfaces. The light aperture of the LED Spot covers an area of 20 × 20 mm and can, depending on the required intensity and homogeneity, be significantly increased by changing the lamp's distance from the substrate. In addition the exposed surface can be divided into four segments that can be controlled independently of each other. In combination with the proven Hönle bluepoint, complete processing sequences, such as exposure sequences with varying intensities and waiting times, can be programmed to minimise cycle times especially in fully-automated production lines. The LED spot is available with air and with water cooling, the latter being also suitable for cleanroom applications.

The use of UV and UV LED adhesive technology is showing its benefits in ever more situations, including in joining metals with glass or plastics, as demonstrated by the **Vitralit®** adhesives. Simple applications and rapid curing are just two of the benefits of the Hönle group's UV system technology.

Adhesives expert Panacol and UV specialist Hönle are an unbeatable team, providing sophisticated adhesives and sealants, associated curing equipment and a competent,

efficient service for nearly all types of modern industrial bond from a single source.

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About the Hönle Group: In addition to consolidated parent Dr. Hönle AG (UV systems), the Hönle Group comprises Aladin GmbH (UV lamps) and adhesives specialist Panacol. Further members are dryer specialists for web offset printing PrintConcept and dryer specialists for sheet feed offset printing Eltosch. Beside subsidiaries in France, Spain and the United Kingdom and a representative office in China Hönle has a closely knit network of sales partners throughout the world.

About Hönle: Dr. Hönle AG is the world's second largest supplier of industrial UV technology. The stock exchange-listed UV specialist develops, produces and distributes UV systems, UV lamps, UV adhesives and UV measuring systems throughout the world. Its systems are used in cross-linking photoreactive substances as well as for surface sterilisation and solar radiation simulation.

Hönle's products are used in electronics, microelectronics, precision mechanics, and optics production processes and in the printing, car, aerospace and pharmaceutical industries.

About Panacol: Since 2008 Swiss Panacol AG is the Hönle group's specialist for industrial adhesives, supplying a wide range of UV adhesives, structural adhesives, silicones and other system products, including such well-known brands as Elecolit® and Vitralit®. The company has sites in Switzerland, France and Germany. Product development and production are based in German group member Panacol-Elosol's headquarters in Steinbach near Frankfurt and the central storage facility and international sales are also located in Germany.