

Press information

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UV adhesive technology from Panacol

Hönle's adhesive specialist Panacol presents new products at the Glasstec in Düsseldorf

Represented by its adhesives specialist Panacol, the Hönle Group is presenting innovative products and processes all around bonding and working with glass at this year's Glasstec (Hall 10, Stand E50) from 28 September to 1 October in Düsseldorf.

New on the market are the **Vitralit® UV 2771** and **Vitralit VBB-N** adhesives, which have been developed specially for glass bonding. They are both suitable for bonding glass to glass and glass to metal in a wide range of applications and can, thanks to their special formulation, also be used for laminated safety glass and tempered safety glass.

A further highlight from Hönle's adhesives specialist is the new Panacol-developed **UV glue chipping** method, which allows the creative production of decorative glass using UV technology. Because of its simple handling and method, the new technique is suitable for the entire glass industry.

Panacol's offering of high-tech adhesives is rounded off by Hönle's perfectly matched UV and UV LED curing devices. As systems provider the Hönle Group will, of course, also be presenting a select range of dispensing devices.

For further information about each product, see our attached product bulletins or our website www.hoenlegroup.de or www.panacol.de.

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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 the dryer specialists PrintConcept (web offset printing) and Eltosch (sheet feed offset printing). Beside subsidiaries in France, Spain, the United Kingdom and the United States, as well as a representative office in China, Hönle has a closely knit, worldwide network of sales partners.

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Products of the Hönle Group at the Glasstec 2010

Panacol presents its new glass adhesives Vitralit® UV 2771 and Vitralit® VBB-N

With its UV-curing high-tech products of the Vitralit® series, Panacol has already firmly established itself in the glass bonding sector. At the Glasstec the adhesives specialist will be introducing two new special adhesives for universal glass bonding:

With its outstanding adhesion properties to glass, aluminium and stainless steel, **Vitralit® UV 2771** is especially versatile. It has a moderate viscosity and low flow properties and can be used for bonding combinations of different materials. Because of its very good ultimate elongation, which can compensate different degrees of thermal expansion, it can also be used in areas that are prone to high temperature fluctuations. It also has a good transparency, even at greater layer thicknesses.

The almost completely clear-as-glass **Vitralit® VBB-N** is a brand-new development that unites low viscosity with exceptionally high elasticity. Its ultimate elongation of about 300 percent far surpasses that of most conventional low-viscosity glass adhesives, which rarely have an ultimate elongation of more than ten percent. This characteristic makes it eminently suitable for constructing (large) glass display cabinets (with a glass thickness of at least 10 mm), for example for museums. Initial trials also showed a moisture-resistance that meets the British Standard for outdoor bevel applications. This will be verified in further tests.

Both of the new Vitralit® adhesives are suitable for bonding glass to glass and glass to metal in a wide range of applications and can, thanks to their special formulation, also be used for laminated safety glass and tempered safety glass. Like all Vitralit® products, these new developments are single-component, solvent-free and can be processed conveniently and quickly. They can be cured within seconds with both UV and UV LED lamps and the adhesive system's final strength withstands forces that, in most cases, exceed the load limits of glass and other materials. Also available from the Hönle Group are curing devices that are perfectly matched to the adhesives – developed and produced by UV specialist Dr. Hönle AG.

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Innovative process for decorative glass: Panacol UV glue chipping

In addition to bonding glass, UV technology can now also be used to produce decorative glass with the new *UV glue chipping* technique, developed by the Hönle Group's adhesive specialist Panacol. Glue chipping was originally carried out using animal glue. Because this involved a complex procedure, it has, until now, only been used in industrial applications. *UV glue chipping* with Panacol's **QuickChip88®** changes all that: Being exceptionally easy to handle and reacting within only a few minutes, this ready-to-use, UV-curing single-component adhesive makes glue chipping a viable, cost-effective option for glass artists and industry alike.

The basic material for UV glue chipping is sand-blasted glass with a roughened surface. The glass surface to be decorated with UV glue chipping must be completely clean and dry. Two UV adhesives – **QuickChip88®** and **QuickChip88Gel®** – are available, the choice depending on the application method. With **QuickChip88®** any shape or pattern can be applied to the glass, for example using a stencil or screen, or freehand. With the gel version, a form can be precisely contoured and filled, whose thickness depends on the application and desired result. This even works with three-dimensional objects – such as vases – and vertical surfaces – for example permanently installed glass panes. Once applied, the adhesive is UV cured, ideally with Hönle's powerful UV lamps, like the **UVA Hand 250W**.

After the adhesive has been cured for around two minutes and then left to dry for at least an hour at room temperature, a special chemical process (high shrinkage) causes stresses to occur on the surface of the glass, which results in pieces of glass pulling away from the surface. In most cases, these "glass shells" then drop off by themselves, revealing transparent, textured glass underneath.

This new and simple method allows decorative details and motifs of all kinds to be applied to windows, doors and other glass objects. Large areas of glass can be decorated for industrial purposes and artistic motifs can be applied to glass for private use. Examples include company logos or large designs for glass furniture. With QuickChip88Gel, glue chipping can even be applied to three-dimensional objects such as vases, bowls, pitchers and sculptures. The possibilities are limited only by one's imagination.

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UV large-area flood lamp Vitralit® from Hönle

For bonding glass cabinets, sideboards and other furniture the Hönle Group has developed the Vitralit® flood lamp. The flexible UV large-area flood lamp consists of eight high-performance 200 watt bulbs. With overall dimensions of 2100 × 750 × 125 mm it provides an effective lighting area of 2000 × 700 mm. Its uniform illumination density results in gentle, tension-free curing of glass objects. Fitted on a tripod with coasters and height-adjustment, the Hönle Vitralit® flood lamp can be positioned horizontally at the perfect position relative to the cured object.

Hönle UV LED arrays and flood lamps

Hönle's UV LED lamps are available as LED arrays or flood lamp. While the arrays cover a treated area from 20 × 500 mm to 20 × 2000 mm, the LED flood lamp can be used for surfaces of up to 150 × 160 mm. All LED lamps are highly flexible and provide an even, homogeneous illumination of the treated surface. With a wavelength of 405 nm they are ideal for glass bonding.