

Press Release

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Ligna 2015: Technological highlights from adhesives specialist Henkel

Crosslinking at the speed of light

The adhesives manufacturer Henkel is an expert in networking on all levels. One of the reasons behind the success of the worldwide leading solution provider is its practice of close networking with manufacturers in the furniture industry and their machine suppliers. Internally, the interlinking between the Henkel development departments spanning such diverse technologies as automotive engineering, electronics and medical technology through to furniture manufacturing, creates the ideal breeding ground for innovative adhesive developments. And finally, one of the company's core competencies – bonding – is based on the chemistry of crosslinking.

In the run-up to this year's Ligna machinery and equipment trade fair, the Düsseldorf manufacturer of innovative adhesive systems has been concentrating on a variety of aspects in the areas of UV technology and heat-seal techniques for flat lamination and will be presenting these focal points of its development work in Hall 17 (Stand D 19) and Hall 26 (Stand A 29).

Tailor-made adhesives, first-class service

Henkel's adhesives research generates a very high rate of innovation, largely fueled by the intensive collaboration between the different internal research departments. The latest results of this are advanced hotmelts that crosslink when exposed to UV light, which have now found their way into the furniture industry.

Their range of potential uses is extremely broad: The UV technology is already being used in edge sealing and high gloss coating. Outstanding plus points are the exceptionally fast cure speed and the absence of volatile organic compounds (VOC).



Fusion Coating: UV hotmelt for surface finishing

Fusion Coating is an attractive process in terms of the effort required and results obtained when finishing melamine-faced panels. In this method, the UV hotmelt Technomelt CHS 370 UV is applied to decor panels where – after an adjustable fast cure – it serves as an adhesion-promoting layer for the finish coat. The Inert Coating equipment that was designed specifically for this coating technology was developed by Henkel's industrial partner Cefla, a group of companies specializing in the development and construction of printing and coating systems.

The advantages of this technology are compelling: high adhesion to melamine-resin-coated panels; increased efficiency due to the reduced number of production steps; instant cure and hence elimination of waiting times before downstream processing or transport; attractive cost structure versus direct primer/paint systems or application of high gloss finish foils; reduced energy costs thanks to lower processing temperature; and flexibility in terms of lacquer usage and degree of gloss – up to and including piano lacquer-like quality with fantastic depth.

UV Edge Sealing: for perfectly finished edges

A similar level of added value is offered by UV Edge Sealing with UV hotmelts from Henkel. Here too, the speed of reaction from photoinitiation through to full cure is astonishing – taking only fractions of a second – resulting in multiple positive effects from downstream processing to overall system efficiency. Other impressive aspects are the higher chemical resistance and, thanks to durable crosslinking, the excellent hardness of the fully cured adhesive. The UV crosslinking mechanism also offers its own advantages in terms of immediate readiness for further processing and better moisture resistance. Technomelt UV from Henkel therefore goes straight to the heart of the problem, providing a solution for successfully reacting as a sealant on the increasingly porous middle layer of chipboard or particle board, so that these can be used instead of the more expensive MDF panels.

Collaborative reacTec project running well

Henkel will also be focusing on reacTec at the upcoming Ligna. This joint project between machine manufacturer Homag, precision adhesive application equipment supplier Nordson, and Henkel, is already proving its worth at several locations around the world. The innovative process for formaldehyde-free flat lamination of wood-based materials with decor papers and PP finish foils has already established itself well in the market and is steadily displacing urea-formaldehyde-based systems. The excellent surface smoothness, good moisture barrier properties, immediate

handling and processing capability, and high thermal stability make this technology ideal for surface finishing of chipboard and MDF aiming for high quality, sustainable and future-proof results.

Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions both in the consumer and industrial businesses with well-known brands such as Persil, Schwarzkopf and Loctite. Henkel employs almost 50,000 people and reported sales of 16.4 billion euros and adjusted operating profit of 2.6 billion euros in fiscal 2014. Henkel's preferred shares are listed in the German stock index DAX.

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UV Edge Sealing: for edges in perfection



Shiny kitchens thanks to Fusion Coating



UV-Hotmelts cater for brilliant results