



Press Release

Düsseldorf, June 3, 2009

Henkel at Techtexsil 2009

Technology change in textile lamination

The use of hotmelt adhesives is becoming increasingly popular in textile lamination. When deciding on new plant investments, manufacturers are tending more and more to opt for the hotmelt lamination alternative – simply because of the many advantages that this offers over conventional technologies. As a world leader in the production of industrial adhesives, Henkel has a range of innovative product solutions for textile lamination to showcase at this year's Techtexsil trade fair in Frankfurt/Main, Germany.

Hotmelt adhesives are playing an increasingly important role in textile lamination. Compared to traditional methods, hotmelt technology offers numerous process configuration benefits, reduces production cost and makes an active contribution to climate protection. That is why almost all the renowned manufacturers of adhesive applicators are now offering textile laminating machines suitable for a wide range of coating processes. Hotmelts are supplied in their solid state and are melted at temperatures between 90°C and 180°C. They are then applied in their liquid form to one of the mating substrates, and the two "partners" are then immediately joined together. The adhesive type required will depend on the application process employed, the material being laminated and the associated duty specifications.

With its brands LIOTEX and PUR-FECT, Henkel offers a product portfolio able to cover a wide range of applications, enabling the properties of greatly differing materials to be combined within high-performance textile composites. Modern application examples include the coating of carpet backs and foam-textile lamination. Henkel has developed high-performance hotmelt adhesives for such operations, ideally matched to the special requirements of each field of application.

"In the production of carpets and textile floor coverings, and also in the manufacture of synthetic turf, latex dispersions have until recently been regarded as state-of-the-art for securing the fibers in the backing or ground fabric. However, when investing in

new machinery, carpet manufacturers are putting their faith more and more in hotmelt adhesives,” explains Alejandro Schönhoff, Product Manager Fiber & Fabric at Henkel. And there is a reason for this, namely that hotmelt technology offers a number of advantages over latex coating systems.

Hotmelt adhesives comprise 100 percent solid material. Unlike with latex dispersion systems, no water is wasted in having to dissolve the adhesive for the process in hand. In the case of latex dispersions, moreover, around half the mass applied evaporates in the subsequent drying process. The use of hotmelt adhesives completely eliminates the need for a drying process, with dramatic savings in energy costs ensuing. “In a direct comparison, the reduction is around 70 percent, even taking into account the energy required to initially melt the hotmelts,” Schönhoff assures. A further plus lies in the short open time available with LIOTEX adhesives. The applied melt quickly cools so that e.g. the carpeting product can be further processed without any great loss of time. To improve the appearance of the product, a second backing can – with the hotmelt option – also be laminated inline, i.e. in one production step, significantly simplifying the manufacturing process. And this too is something that latex dispersion technology cannot offer.

Thanks to their good environmental compatibility, modern hotmelt techniques are also now being used for foam-textile lamination applications. Whether for the manufacture of interior automotive cladding or ladies’ bras, laminating with polyurethane-based reactive hotmelts is becoming firmly established as the preferred technology, taking the place of flame lamination – a process in which the material composite is manufactured by passing the top foam layer through a flame. One of the major benefits of hotmelt adhesives is that, in contrast to flame lamination, the application process does not give rise to any CO₂ emissions. “And that is something that also benefits composite manufacturers - because switching to this new technology eliminates the need for additional investment in high-cost safety equipment such as activated carbon filters,” comments Norman Woehlbier, likewise Product Manager Fiber & Fabric.

Taking into account the loss of material that occurs when flaming the foam, the price range of both technologies is very similar. Aside from the advantages already mentioned with respect to environmental compatibility, hotmelt adhesives of the Henkel brands LIOTEX and PUR-FECT offer a markedly higher degree of flexibility in terms of the range of laminating materials that can be used. In the manufacture of high-quality braziers, for example, increasing use is being made of aliphatic PUR foams that do not yellow with time, even when in direct contact with UV light. “However, these foams – like many other materials – are not suitable for flame lamination,” says Woehlbier. “So in any direct comparison, hotmelt technology for textile lamination is also able to bring some pretty persuasive arguments with respect to application versatility.”

Henkel at Techtexsil

Detailed information relating to Henkel's product portfolio covering the full spectrum of textile lamination and coating applications awaits visitors at Techtexsil 2009 in Frankfurt/Main (Hall 3, Stand D75), due to take place from June 16 to 18.

Further material is available at <http://www.henkel.com/press>

For more than 130 years, Henkel has been a leader with brands and technologies that make people's lives easier, better and more beautiful. Henkel operates in three business areas – Home Care, Personal Care, and Adhesive Technologies – and is ranked among the Fortune Global 500 companies. More than 60 percent of Henkel's sales are in consumer goods, while the industrial business accounts for almost 40 percent of the company's total sales. In fiscal 2008, Henkel generated sales of 14,131 million euros and an adjusted operating profit of 1,460 million euros. More than 55,000 employees worldwide are dedicated to fulfilling Henkel's corporate claim, "A Brand like a Friend," and ensuring that people in more than 125 countries can trust in brands and technologies from Henkel.

Contact

Peter Kreft

Tel. +49 211 797-1458

Fax +49 211 798-11458

Christoph Schmidt

Tel. +49 211 797-9933

Fax +49 211 798-11458

Henkel AG & Co. KGaA

Head of Corporate Communications:
Ernst Primosch, Corporate Vice President

The following images are available:



Technology change – carpet manufacturers are putting their faith more and more in hotmelt adhesives.



Due to their good environmental compatibility, modern hotmelt techniques are also now being used for foam-textile lamination applications.