



## Press release

October 13, 2009

Purmelt MicroEmission from Henkel

### Breath of fresh air for bookbinders

With its range of emission-reduced polyurethane hotmelt adhesives (PUR hotmelts), Henkel is setting new standards of occupational health and safety in the graphic arts industry. The innovative adhesives of the Purmelt MicroEmission series are a response to the growing awareness of the need for sustainable production processes in the industry and are recommended by accident insurance institutions. At Frankfurt Book Fair 2009, the Company is presenting not only improved products for spine binding, but also emission-reduced PUR hotmelts for side gluing and endpapering.

Frankfurt – A breath of fresh air: By using emission-reduced PUR hotmelts, a growing number of bookbinders are creating a safer working environment on the shop floor. With its Purmelt MicroEmission series Henkel presents a new generation of PUR hotmelts that are exempt from hazard labeling. This causes quite a stir in the industry, as conventional PUR hotmelts, despite their excellent performance profile for book and magazine production, are classified as hazardous and therefore call for additional protective measures.

#### Emissions slashed by 90 percent

Conventional polyurethane hotmelts carry the Xn hazard symbol. This is because they contain up to 5 percent monomeric isocyanates that are given off as vapors into the ambient air during processing at elevated temperatures and can irritate the respiratory organs, eyes and skin, or cause allergies. Production plant and melters therefore have to be equipped with extraction systems, and special employee training is a useful added precaution. Furthermore, according to the law in some parts of Europe, hazardous substances subject to compulsory labeling have to be separately stored, which imposes an extra burden on businesses. Purmelt MicroEmission adhesives, on the other hand, contain only 0.1 percent monomeric isocyanates. This



puts them well below the threshold for statutory labeling as a hazardous substance. Independent institutes have tested MicroEmission adhesives in authentic operating conditions on all commonly used binding machines and application systems and confirmed the reduction in monomeric isocyanates in the working atmosphere by up to 90 percent. The German statutory accident insurance institution therefore explicitly recommends that firms use MicroEmission products. Purmelt MicroEmission products also comply with the strict environmental protection standards in Scandinavian countries and have been carrying the Nordic Swan environmental label since the beginning of 2008. Moreover, the products conform to the European Chemicals Regulation REACH, which came into force in 2007.

### **Now also available for side gluing and endpapering**

In terms of bonding performance, MicroEmission products are in every way equal to conventional Purmelts. Henkel's aim was it to take the technical standard of occupational safety and environmental protection to a new level without decreasing product quality. And Henkel succeeded: All international plant manufacturers have tested and approved the products. Purmelt MicroEmission offers the whole product range for spine gluing, side gluing and endpapering, and today is in a similar price segment to conventional products. Product stability in the machine can be ensured among other things by reducing processing temperature over the usual long period, which also reduces energy consumption. All new PURmelts are optionally also available as granules, which can be poured straight into the gluing unit for trial purposes. This way, Henkel is making the changeover to this forward-looking product category even simpler for interested bookbinders.

Henkel has been committed to making people's lives easier, better and more beautiful for more than 130 years. A Fortune Global 500 and Germany's most admired company according to a recent Fortune survey, Henkel offers strong brands and technologies in three areas of competence: Home Care, Personal Care and Adhesive Technologies. Each day, more than 52,000 employees in 125 countries are dedicated to fulfilling Henkel's claim "A Brand like a Friend." In fiscal 2008, Henkel generated sales of 14,131 million euros and adjusted operating profit of 1,460 million euros.

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Henkel AG & Co. KGaA

The following image is available at <http://www.henkel.com/press>



— No statutory labeling required: Purmelt MicroEmission adhesives contain only 0.1 percent monomeric isocyanates.

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