

Henkel at the 26th EU PVSEC

Weather-resistant PV Backsheets with Liofol

Extremely productive manufacturing processes and new concepts for saving materials and energy are vital to the future viability of the solar industry. To meet the challenges facing the market, Henkel develops innovative adhesives and sealants. At the 26th European Photovoltaic Solar Energy Conference in Hamburg, the company will be presenting powerful solutions spanning the entire value chain.

Visitors to this year's EU PVSEC can look forward to new trends and developments in the photovoltaic industry. As the leading global manufacturer of adhesives and sealants, Henkel will also be there (Hall B6, Stand B11), presenting an extensive product portfolio for automated production of solar modules. Among other things, the specialists at Henkel will be bringing along different solutions for different backsheet structures used in PV solar modules. With two-component PUR systems developed under the Liofol brand, the world number one in sealants and adhesives has now applied its entire expertise in laminating technology to solving the problems of the solar industry.

The main components of solar modules with photovoltaic cells of crystalline silicon are the glass lens, two EVA sheets (ethylene vinyl acetate) in which both the silicon solar cells and the electrical contacts are embedded, and then a final layer in the form of a protective, backsheet, usually comprised of a multi-film laminate. "The demands on this composite sheet are particularly high and increased within the last years," explains Stefan Tomke, responsible at Henkel for product development on the laminating adhesives side. "During the 20 to 25 years of its service lifetime, the backsheet is expected to continuously withstand all the tough weathering conditions to which it is exposed in outdoor areas." For the components of the backsheet extreme hydrolysis is a particular problem, and the adhesives especially need to exhibit enormous resilience in this respect."

UV resistance is also paramount as the backsheet must not be allowed to yellow. “Added to this is the fact that, during the module manufacturing, the adhesives have to readily withstand temperatures of up to 150 degrees Centigrade for periods of 25 to 35 minutes,” Tomke continues. The composite sheets laminated with Liofol adhesives are therefore subjected to a whole raft of rigorous industrial tests. With ever changing industrial standards, the laminates are often time subjected to thermal resistance test at temperature of 200 degrees Centigrade, weathering of 85 degrees Centigrade at 85 per cent relative humidity for 1,000, 2,000 or 3,000 hours, depending on customer demands.

The European Photovoltaic Solar Energy Conference and Exhibition is widely regarded as the premier event within the solar industry. For many years it has constantly provided an integrated program comprised of scientific knowledge transfer and trade show. “This exhibition is an excellent business platform for the business,” explains Rajko Pfefferkorn, Sales Manager and Head of Engineering Laminations. “Thanks to our global presence, we meet specific local requirements from Asia, Europe or the United States not only with innovative solutions, but also with a high degree of technical support.”

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

Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Home Care, Cosmetics/Toiletries 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 about 48,000 people and reported sales of 15,092 million euros and adjusted operating profit of 1,862 million euros in fiscal 2010. Henkel's preferred shares are listed in the German stock index DAX and the company ranks among the Fortune Global 500.

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The following material is available:



— The weather-resistant solution for PV Backsheets: laminating adhesives from Liofol.