

## **Press release**

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Henkel to showcase mold sealers and adhesives at the JEC exhibition in Paris

### **Frekote for high-gloss plastic components**

The Frekote products that Henkel will exhibit at the JEC Composites fair are highly efficient solutions for complex mold geometries. During the exhibition centering on the composites industry, which takes place from March 12 to 14 in Paris, the world's leading adhesives manufacturer will present its product portfolio for the sector. Frekote is not only the brand for outstanding mold release agents; users also benefit from Henkel's expertise in the development of customer-specific solutions.

In addition to adhesives and sealants, Henkel's product range includes surface treatments such as the mold release agent Loctite Frekote. The products are applied to the mold, where they form an extremely thin, heat-resistant layer that combines chemically with the surface of the mold, thereby sealing even micro-porosity.

The Frekote line is the industry's largest range of semi-permanent release agents, sealers and cleaners. Frekote mold release agents are based on over 50 years of research and development work focusing on performance, quality and value added and have become the global standard in industry. Henkel has developed pioneering solutions for many of the world's largest production companies.



## **Frekote CS-122, RS-100 and C-400**

These include the latest innovations: Loctite Frekote CS-122, RS-100 and C-400. CS-122 is a pretreatment product that seals porosity exceptionally well. It forms a high-gloss coating within two hours and has minimal odor. RS-100 is a heat-cured sealer for rubber applications. This new pretreatment product can be applied to the mold at temperatures of up to 200°C and then cures in just five minutes. RS-100 is water-based and non-flammable. C-400 is a water-based release agent that is particularly suitable for producing high-gloss coatings on polyester parts, e.g. for visually attractive vehicle spoilers, truck cabs and yacht bodies.

Further innovations are still under development. These include the mold release sealer Frekote CS-125, which offers additional cost savings as regards the manufacture of molds. This product is capable of sealing porosity in molded foams and other molded materials without an additional coating of mold gel being required. Moreover, the product provides an excellent high-gloss finish that is unrivaled among its competitors.

## **Henkel offers a wide range of structural adhesives**

Whether for mechanical engineering, domestic appliances or in industry, traditional fastening methods such as riveting and welding are giving way to structural adhesives across the board. These products bond different materials such as metal, plastic and fiber-reinforced composites quickly and easily.

Henkel offers a wide range of structural adhesives in five core adhesive technologies: epoxy resins, acrylates, polyurethanes, silane-modified polymers and silicones. This broad-based portfolio means that Henkel provides solutions for an extremely wide variety of applications and substrate combinations. In addition, Henkel is continually developing new adhesives to expand the current range.

## **Macroplast UK 1340 for a rapid manufacturing process**

The transition from fossil fuels to renewable energy sources is posing major challenges for the manufacturers of wind energy plants. Improving the availability of the plants themselves and the productivity of existing production facilities are key factors in ensuring economic viability. Rapid manufacturing processes are required to ensure that capital investments pay off. Traditionally, blade shells and spars have been bonded using two-component epoxy resins. While these materials reliably meet the extremely high mechanical specifications, they delay the automated manufacturing process.

Alternative adhesives such as Macroplast UK 1340 from Henkel are therefore needed to speed up production. Here Henkel has succeeded in developing a PUR adhesive that makes rotor blade production more efficient and satisfies the specific mechanical requirements for use in the wind power industry. Polyurethane-based adhesives react quickly, which means that Macroplast UK 1340 cures much faster than the epoxy resins used up to now. This minimizes not only the duration of the cure phase, but also the release of energy and thus the temperature during curing.

### **Henkel at booth R45, Hall 1**

For customers and prospects attending the JEC Composites show in Paris, Henkel offers further information about its innovations and the opportunity to talk to experts regarding sealers, adhesives and sealants. Henkel can be found at booth R45.

**Photo material is available at [www.henkel.com/press](http://www.henkel.com/press)**

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 about 47,000 people and reported sales of 15,605 million euros and adjusted operating profit of 2,029 million euros in fiscal 2011. Henkel's preferred shares are listed in the German stock index DAX.

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**The following images are available for publication:**



An ENERCON rotor blade manufactured using Macroplast UK 1340 underwent an endurance test lasting around four months at the Fraunhofer Institute for Wind Energy and Energy System

Technology (IWES). During the test it was subjected to the loads that would normally occur over a period of 20 years.



The adhesive bonded joints performed well during the endurance test under extremely heavy loads. The IWES tested the 40-meter-long rotor blade in accordance with the IEC 61400-23 standard, which is used to examine nominal load capacity and fatigue damage during static and dynamic tests.



Loctite Frekote RS-100, a new product.