

Press release

## MAP-salad packaging tested Kobusch-Sengewald film gets very good results

**Warburg / Halle (Westfalen), 14 June 2006. A test run of protective atmospheric packaging for convenience salads was carried out by the professorship of the Kiel University. They found, that film made by Kobusch-Sengewald, in combination with a mixture of gases produced by Linde AG, gave very good results.**

Packaging concepts, including different films and mixtures of gases, were tested by order of a salad manufacturer. MAP lids, varying in permeability, were used with PP bowls for the packaging of mono and mixed salads. The protective atmosphere was varied throughout the test run. The aim of the test was to optimise the packaging conditions for the extended shelf life of a convenience salad. This can be achieved with suitable covering film and a functional mixture of gases for the protection of the product.

The breathing activity of packaged salads, the composition of the protective gas atmosphere and the use of suitably permeable packaging films critically influence the shelf life of the product. The microclimate within the fresh salad MAP-packaging plays a very important role. This microclimate changes during the course of storage.

During the tests the total number of bacteria, the appearance of the salads and the composition of the gas atmosphere in the packaging were examined subsequent to storage at 4 - 5 °C. The oxygen content was not to exceed a given limit value, and the same applied for the carbon dioxide concentrate's maximum values. The following were tested: mono salads consisting of iceberg lettuce and endive, slices of cucumber and julienne-cut carrots, as well as mixed salads consisting of iceberg lettuce and endive, egg, tomato, chicken, cucumber and sweetcorn, and a further mixture of tomato, feta cheese, iceberg lettuce/endive, peppers, cucumber, onions, pepperoni and olives.



The shelf life of the tested salads was extended from the previous 3 to 5-6 days (nearly double) by using the multilayer film made by Kobusch-Sengewald with its product specific barrier properties, in combination with the adequate protective mixture of gases produced by Linde AG, and with the necessary cold storage.

Kobusch-Sengewald manufactures and processes flexible packaging on a global scale, they also supply specialised packaging solutions for food, chemical engineering products, hygiene products and medical items. More than 500 employees work at the two sites in Warburg and Halle/Westfalen. Kobusch-Sengewald earned around 120 million euros in 2005.

Kobusch-Sengewald is a 100% subsidiary of the international group Pregis Corporation, one of the leading producers of specialty packaging solutions with production sites in 15 countries and sales (2005) of 930 mio. US\$.

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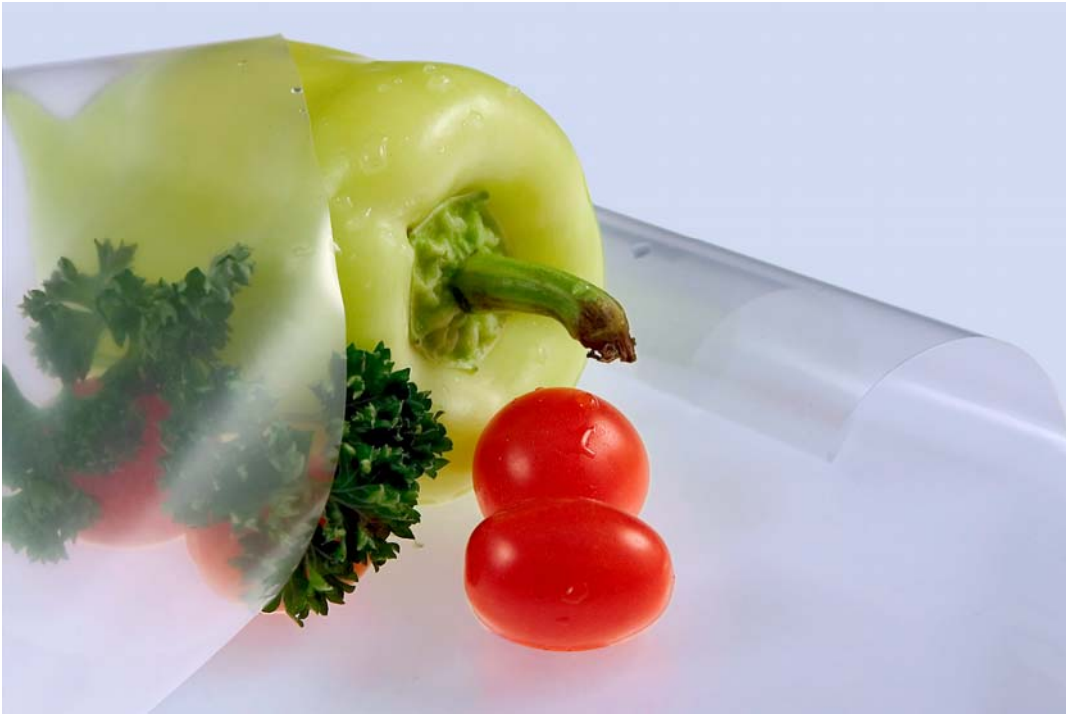
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**Note for the editor:**

Text and photo (300 dpi, imprint free of charge) are available on request via e-mail. You can find further information at [www.kobusch-sengewald.com](http://www.kobusch-sengewald.com).

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