

## **Lights, camera, action: All eyes on film!**

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“From the sealing capability to tear resistance - we can test everything “: The brand new R&D Competence Center for Film was opened today at the Constantia Flexibles location of Hueck in Weiden in Germany. We spoke with the Head of R&D Film, Achim Grefenstein, about Apple in California, future projects and trends in the film industry.



**Constantia Flexibles: The new research and development center here in Weiden is specialized in “film”. This term makes many people think of movies. What does “film” mean in the packaging industry?**

**Achim Grefenstein:** The term “film” refers to thin plastic material, in contrast to “foil” which refers to thin aluminum material. Over 80 percent of the entire market for flexible packaging consists of laminates made from plastic films. It was therefore a logical step for us to strengthen our R&D competence in this area with the new “CC Polymer Films and Film Laminates”.

**Constantia Flexibles: Apple operates a special room in California where packaging is tested...is this something you have to consider?**

**Achim Grefenstein:** At Apple in California, the main issues are design questions such as haptics, materials and user-friendliness. All of this naturally plays a role in our work, but our focus goes even deeper. We work on the development of the “base materials” for packaging.

In this area, we have set ourselves the following tasks:

Our analytics department determines the precise structure of various packaging laminates so that we always know what our competitors are using and what requirements these laminates fulfill.

Our raw material specialists for plastic films, lacquers, adhesives and other coating materials keep in close and regular contact with our suppliers and development partners and evaluate their new developments for potential use in our products.

With our laboratory systems, we can produce any packaging laminate on a small scale for initial customer tests. We can also carry out initial packing tests with our Form Fill and Seal system.

And lastly, our experts for food safety / product conformity ensure compliance with applicable laws in the areas of food and pharmaceuticals.

**Constantia Flexibles: What are the three most important tasks of the new competence center?**

**Achim Grefenstein:** In the first place, we support the colleagues in the Sales area, especially the product managers and key account managers, who are in direct contact with our customers and know their requirements. They then come to us with these “requirement profiles”, and together we consider how we can implement them. Alongside design requirements and

new materials, the production processes at the customer are also critical in this regard. Here in the laboratory, we can carry out all quality tests ourselves – from the sealing capability to tear resistance, we can test everything.

A second task is the bundling of competence worldwide, such as with regard to the recipes for our raw materials. We now develop our own compositions here, which must then be produced by our supplier. This way, we know exactly what is in our plastic films and what they are composed of. Consequently, we can also provide our customer with optimal and transparent information, which is an important factor when it comes to food law.

The third main task consists of producing completely new innovations, in other words in-house developments. These address longer-term market trends, such as more recycling-friendly and sustainable packaging or packaging laminates that result in less waste for our customers within their packing processes.

### **Constantia Flexibles: What is the R&D process like? How do you develop innovative products?**

**Achim Grefenstein:** In our group, we have practiced a stage-gate process for many years in cooperation with our internal customers in the divisions. Roughly six months ago, we implemented this workflow from the project or product idea through preliminary studies, the actual project phase and on to market introduction in a web-based tool. This allows project managers and gatekeepers, but also project team members, to exchange information and ideas about the projects relevant to them, even between our locations around the world. This is an important step for know-how management in a distributed organization.

### **Constantia Flexibles: What are the future trends?**

**Achim Grefenstein:** The film area will continue to experience strong growth. Particularly in the emerging markets in Asia and Africa, film is the number one packaging type, and this trend will continue.

Of course, recycling is also a major topic that the packaging industry is dealing with. It is necessary to find recyclable materials that represent an alternative to the typical PET/PE laminates. The trend here is moving in the direction of mono-material laminates, in which materials are no longer

mixed, which naturally causes bigger problems during subsequent recycling. Instead, the packaging consists of a single type of plastic. However, this must of course have all the properties required to protect the food and comply with food laws – a major challenge for research.

**Constantia Flexibles: If you could choose – which product would you personally like to see improved?**

**Achim Grefenstein:** Flexible packaging has already successfully replaced other stiffer and thicker packaging in many areas. One example of this can be found in stand-up pouches, which are increasingly used for beverages and sauces and use significantly less material.

Currently, there are still limits for carbonated drinks since very high pressures can arise, such as when the packaging is left lying in a hot car during summer. Additional efforts are certainly required in the area in order to improve the strength of our laminates and in particular the sealing materials...