

News Release



Red card for oxygen

With Ultradur® Barrier, oxygen stays out and quality stays in.

- **New PBT barrier material from BASF**
- **OTR (Oxygen Transmission Rate) at detection limit**
- **Single-layer solution (injection molded) for food packaging and cosmetics**
- **Food contact-compliant coloring master batches allow customization**

Only three years after introducing the first PBT (polybutylene terephthalate) grade for coffee capsules, BASF expands its product line of food contact grade PBTs with a PBT superior when it comes to oxygen transmission.

This material goes by the name Ultradur® Barrier (B 1520 FC). The brand-new material will be launched at Fakuma 2017 in Friedrichshafen, at BASF stand 4306 in hall B4.

Interest was high when BASF presented its first PBT for coffee capsules at the end of 2014, as the product offered multiple advantages compared to existing solutions. It combined excellent barrier properties while containing aromas, without the need for any additional complex coating. This distinguished these Ultradur® capsules from other injection-molded capsules, which are usually

October 11, 2017
P335/17
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Meet us at Fakuma 2017,
Friedrichshafen
October, 17-21, 2017,
Hall B4, booth 4306

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packaged individually, as well as from multilayer thermoformed capsules.

Ultradur® Barrier: Minimum oxygen transmission for maximum taste

For BASF, innovation is the key to successfully standing out in a challenging market environment. Therefore, BASF experts developed a material to minimize oxygen transmission even further.

The result: Ultradur® Barrier, which is based on an entirely new approach to improve oxygen barrier properties for injection-molded thin-wall parts compliant with FC regulations (EU10/2011). Different independent test results have all shown the same: OTR (Oxygen Transmission Rate) values are below the limit of quantitation according to ISO 15105-2/DIN 53380-3 test standards.

The name Barrier reflects the outstanding test scores, where the OTR value (in [$\text{cm}^3/(\text{m}^2 \cdot \text{day} \cdot \text{atm})$]) was measured below 0.10 (measured on 1 mm plaque samples). According to Simon Kniesel, Product Development Engineering Plastics, BASF, “Ultradur Barrier provides an unmatched barrier quality in single-layer injection molding, even exceeding multilayer PP/EVOH/PP solutions used for coffee capsules. This is a major step forward and enables our customers to deliver oxygen-tight packaging solutions to brand owners and a superior aroma experience to end consumers.”

Target applications: Coffee capsules, food packaging, and cosmetics

Besides an outstanding low OTR, the product offers good barrier properties against water vapor, mineral oil, and aroma. It also features good organoleptic properties, which means that it does not affect taste and flavor. Its chemical resistance against hydrocarbons makes the product attractive for the cosmetics industry. As it is a single-layer solution, it needs no additional coating or secondary packaging.

When it comes to different colors, e.g., in order to clearly indicate the various coffee flavors, BASF Color Solutions provides coloring master

batches that have been specially tailored for the Ultradur® FC material and that also have food contact certificates.

Jens Müller, EMEA Segment Marketing for Packaging at BASF's Performance Materials Division, states, "The target markets are the coffee capsules industry, where minimizing oxygen transmission is an important requirement, as well as other food packaging industries and the cosmetics industry. We are excited to discuss with experts from these industries the application of our Ultradur® Barrier in their markets."

More information online: www.ultradur-barrier.basf.com

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 114,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas. BASF generated sales of about €58 billion in 2016. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (BAS). Further information at www.basf.com.