



Joint news release P384/20e

BASF and BillerudKorsnäs cooperate to develop unique homecompostable paper laminate for flexible packaging

- Multi-layer film made of BillerudKorsnäs paper ConFlex® Silk as well as BASF's biopolymer ecovio® and lamination adhesive Epotal® Eco
- Home-compostable solution extends end-of-life options for flexible packaging applications
- Performance regarding processing, sealing, printability and strength on same level as conventional multi-layer films

Ludwigshafen, Germany/Solna, Sweden, December 3, 2020: BASF and the Swedish packaging manufacturer BillerudKorsnäs have cooperated to develop a unique home-compostable paper laminate for flexible packaging. The multi-layer film consists of three basic components: BillerudKorsnäs' paper ConFlex® Silk, a sealing layer made of BASF's certified home compostable and partly bio-based biopolymer ecovio® and BASF's water-based adhesive Epotal® Eco 3675 X which joins the film to the paper. As all parts of the multi-layer laminate are food-contact approved, it can be used to produce wraps with individually adjusted barrier properties, e.g. for cookies, ice cream, cereal bars and dairy items as well as wrappers for fish, meat and cheese freshly sold in supermarkets. All components are certified home-compostable according to official European certification schemes for home-composting. The laminate contains a high share of renewables and extends the end-of-life options for multi-layer flexible packaging by being organically recyclable.

The new home-compostable solution has the same performance features as conventional multi-layer packaging: It is puncture resistant, shows a good printability, excellent heat-seal properties and can be processed on standard packaging

machines. "We wanted to create a paper-based laminate with good heat-seal properties by using certified home-compostable components only", says Amir Pourirani, head of global marketing Biopolymers at BASF. "There is a huge trend in society, in some countries driven by legislation, to move from plastic to paper-based packaging. Moreover, currently available multi-layer flexible films are difficult to recycle but the technical need is still present. In BillerudKorsnäs we found the ideal partner to develop a home-compostable solution based on paper with a broader end-of-life option for packaging while maintaining the technical performance of traditional laminates." According to the targets of the "European Strategy for Plastics in a Circular Economy" all plastic packaging should be recyclable or reusable by 2030.

"With BASF's certified home-compostable biopolymer and adhesive, we found the ideal components to take the next step towards another sustainable solution for flexible packaging in our portfolio", says Markus Saari, business development manager at BillerudKorsnäs. "Our joint development represents a shift to paper-based and compostable material in order to replace traditional laminates for food packaging - meeting hygiene and barrier requirements, maintaining form and enabling many design possibilities just like conventional packaging but with the decisive added benefit that it is home-compostable."

The sealable laminate is produced in a wet lamination process. The outer layer consists of BillerudKorsnäs' home-compostable kraft paper ConFlex® Silk, which is certified according to OK Compost Home by TÜV Austria. It shows good printability and high strength at a weight of 60 g/m². It is based on a mix of 100% primary fibers. The inner sealing layer of the flexible packaging is made of a blown film out of a particular ecovio® grade by BASF, which also holds the "OK Compost Home" certification by TÜV Austria.

The film is suitable for mono and co-extrusion and easy to seal. The sealing is laminated to the paper layer with BASF's water-based dispersion Epotal® Eco 3675 X. This adhesive is certified by DIN Certco as home-compostable according to DIN EN 13432, testing basis NF T 51-800. It can be processed like other adhesives by use of standard lamination machines and shows an excellent performance on different biodegradable substrates.

Further information:

www.ecovio.basf.com

www.basf.com/adhesives

www.basf.com/packaging

www.billerudkorsnas.com/our-offer/packaging-materials/kraft-paper-flexible

About BillerudKorsnäs

BillerudKorsnäs provides packaging materials and solutions that challenge conventional packaging for a sustainable future. We are a world-leading provider of primary fibre based packaging materials and have customers in over 100 countries. The company has 8 production units in Sweden, Finland and the UK and about 4500 employees in over 13 countries. BillerudKorsnäs has an annual turnover of about SEK 24 billion and is listed on Nasdaq Stockholm. www.billerudkorsnas.com

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. More than 117,000 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 six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €59 billion in 2019. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.

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