Guide to the use of recyclable coated paper for food packaging

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White paper available for download now

For the food packaging industry, choosing the most appropriate packaging material for food products is a daily challenge. Paper and cardboard seem ideal as packaging materials, provided they come with a barrier coating. Yet, it is not always clear whether coating materials meet the desired properties and whether they are suitable for the intended purpose. That is where Sirris and its Repac² project partners come in. We have bundled our expertise and the results of extensive research in a white paper. This document is now available!

Discover the white paper

Challenging material

Packaging plays a crucial role in the food supply: it protects quality, ensures safety and extends the shelf life of food products. Every day, the food packaging industry is faced with the choice of the most appropriate material for the packaging of specific food products. In addition, the ecological impact must be considered when choosing packaging materials. The food and packaging industry

is challenged to prove the recyclability of their packaging materials. Ambitious targets are set at European level. European legislation dictates that 65% of all packaging waste needs to be recycled by 2025 and even 70% by 2030 (according to EU Directive 2018/852).

Paper and cardboard are – or seem - ideal packaging materials through the renewable origin of cellulose fibres, their high specific rigidity and light weight but paper lacks the intrinsic properties to protect the quality and shelf life of packaged foods. The performance of paper needs to be adjusted through barrier coatings offering protection against water, gas permeability or aroma preservation. Today, already many coated paper and cardboard materials are marketed for food packaging applications. Traditionally, laminated plastic films are applied to the paper, but in recent years, alternative coatings have been developed, based on aqueous polymer dispersions. Yet, it is not always clear whether these coating materials meet the desired properties and whether they are suitable for the intended purpose.

Tackling challenges, supporting industry

The Cornet project **Repac2: Recyclability and functionality of coated paper and cardboard for food packaging**, brought together European research partners from Belgium, Germany and Poland, including UHasselt, Sirris, Fraunhofer-IVV, Pack4Food, Flanders' FOOD, Natureef and CBIMO, with the aim to tackle these challenges and support the industry for the accelerated implementation of coated paper packaging materials into product development and production processes.

Knowledge gained during the project combined with the expertise of the different research partners on this subject has been summarised in a white paper and made available for everyone interested to increase their knowledge. The 80-pages document provides you with **a summary of all important aspects** regarding coated paper packaging;

- The application of coatings and characterisation of the resulting barrier properties,
- The mechanical recyclability of coated paper according to the new harmonised European laboratory test method of CEPI,
- The assessment of shelf life ,
- The carbon and product environmental footprint,
- The sealability of coated paper packaging,
- Insights from industry on industrial implementation,
- A list of answers to frequently asked questions that reached us during the course of the project.

Download the white paper

Linked to this white paper, a **case-study report** has been published by MPR&S with detailed information on 10 industrial cases that were performed in the framework of the Repac²-project, taking into account all the aspects discussed in the white paper.

Download the case-study report

Additionally, for companies that want to use coated paper packaging for specific food products, a **database with information on commercially available coatings or coated paper for food packaging** is online, where you can search for suitable coated paper material based on different criteria, important for your food product.

Browse the database

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