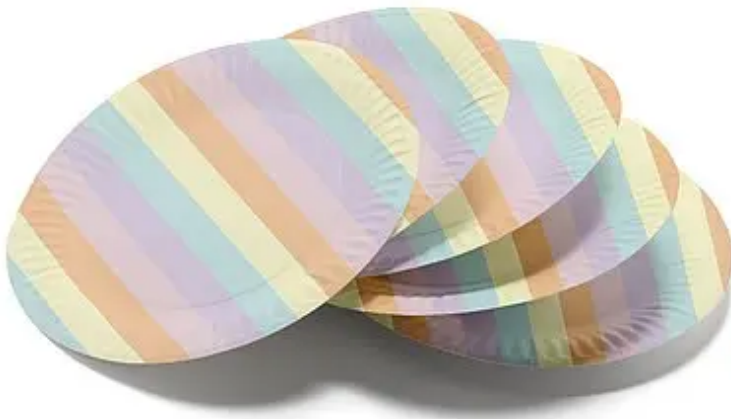


02/24/2023 Press release

## Siegwerk's new UniNATURE barrier coating revolutionizes the use of paper plates

With its new UniNATURE Water-Oil Barrier Coating, Siegwerk offers the first barrier solution with 100% natural content certified for application on paper plates. The water-based functional coating represents a sustainable alternative to replace restricted coatings on single-use paper plates according to the Single Use Plastics Directive (EU 2019/904) and enables their recycling through the existing paper recovery cycle.



Stack of Paper Plates on Seamless Background

**Siegburg, Germany, February, 24, 2023.** - Siegwerk, one of the leading global providers of printing inks and coatings for packaging applications and labels, today announced the successful certification of its new water-based coating *UniNATURE Water-Oil Barrier Coating* for single-use paper plates. The new functional barrier solution is made from 100% natural content and has proven to effectively reduce the absorption of water, oil and grease on plate stock intended for direct food contact while maintaining its recycling through the paper

recovery cycle. Therewith, the new barrier coating offers a sustainable alternative to replace restricted coatings on single-use paper plates according to Single Use Plastics Directive (EU 2019/904) and other relevant legislations. By enhancing the recyclability of disposable paper plates, Siegwerk's new solution helps to keep resources in the loop, fully in line with a Circular Economy.

“Paper packaging with barrier requirements often uses coated or laminated materials, which not only make the packaging hard to recycle, but also lead to further environmental problems for example due to microplastics or persistent chemicals,” explains Anna Maier, Head of Global WB Coatings Technology Platform at Siegwerk. “Here, the use of sustainable barrier coatings can help to replace these hard-to-recycle paper laminates and thus help keep valuable resources in a circular economy.” By using the right barrier coating we can ensure the functionality of paper-based packaging, maintain the highest possible level of safety during food contact, as well as support the circular economy by minimizing the use of resources and maximizing the potential to recover them after use. Moreover, a high share of natural materials in barrier coatings helps to create bio-degradable packaging and avoid issues with microplastics and bio-accumulation, thus adding an indispensable value to the paper packaging’s end-of-life in the sense of a Circular Economy. “With *UniNATURE Water-Oil Barrier Coating* we now offer a 100% natural product certified for short-term direct food contact and independently confirmed as compliant with the requirements of the EU’s Single-Use Plastics Directive” adds Oliver Waddington, Business Development Manager Barrier Coatings EMEA – Fibrebased Materials at Siegwerk.

In January 2023, the *UniNATURE Water-Oil Barrier OPV* became the first coating solution of its kind to be certified for successfully adding a barrier against grease and liquid to paper plates intended for direct food contact. The coating was comprehensively tested by an independent international testing company performing high-level laboratory analyses looking at its behavior in terms of

organoleptic testing as well as inhibitors, total migration, mineral oils, and siloxanes. The migration test conditions included a short term as well as a long term storage. Siegwerk's natural barrier coating meets technical requirements essential for paper plates application. The product showed a good oil and grease resistance according to TAPPI T559 as well as some liquid resistance according to the COBB method. In addition, the new solution functions as a standalone barrier coating in single or multiple layers, meaning it does not require a primer, is suitable as an Over-Print Varnish with Siegwerk's water-based ink systems and is compatible with all standard water-based printing processes and printing machines.

"Saying so, *UniNATURE Water-Oil Barrier Coating* is another proof of how inks and coatings add functional properties to renewable materials like paper, enabling their use for an even wider range of packaging applications and thus paving the way for new mono-material structures in the sense of a Circular Economy," adds Alina Marm, Head of Global Sustainability & Circular Economy. As of today, Siegwerk already offers a variety of barrier coatings based on natural, renewable, or synthetic raw materials depending on the barrier performance required. All of its water-based barrier solutions can be supplied ready-to-use, which enables the use of existing application equipment such as coating, printing, and converting machines. Depending on the end use application and functional requirements needed, barrier solutions can enable light-weighting of the paper, simplify supply chain management by reducing the need for special barrier papers, and can enhance the recycling and composting of packaging to support circularity in the sense of a Circular Economy.

To learn more about Siegwerk's coating solutions, please visit

<https://www.siegwerk.com/en/inks-coatings/coatings.html>



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