

INK, HEART & SOUL



Barrier Coatings – RethINK SOLUTIONS

for Paper & Board Applications

Barrier Coatings – sustainable solutions by Siegwerk

Under the motto **“RethINK packaging”**, Siegwerk is focusing its efforts to help shape the future of packaging for a circular world.

Inks and coatings play an important enabling role for the realization of circular packaging solutions, supporting the reduction, reuse and recycling of packaging.







The demand for sustainable Paper & Board packaging has increased dramatically in recent years as consumers become more mindful of the effects their buying choices have on the environment. This trend increasingly puts significant pressure on paper and paperboard packaging producers to eliminate their use of barrier films, wax impregnation coatings, or silicones. New regulations also strongly limit the use of fluorochemicals. Switching to the use of more environmentally friendly barrier coatings, especially in food and beverage packaging applications, offers a solution to this challenge.

Siegwerks barrier coatings take your application to a recyclable future

Siegwerk’s new portfolio of UNILAC barrier coatings for paper and board includes a range of products that repel water and water vapor, oils, and greases. These barrier coatings are available and produced using natural resins and renewable raw materials whenever possible. Importantly, paper and board coated with these barrier coatings are typically repulpable, recyclable, and compostable, thereby giving paper and paperboard packaging producers the confidence that their packaging has a variety of end of life solutions,

minimizing their impact in case of leakage into the environment (littering).

Siegwerk offers a range of barrier coating formulations to accommodate a variety of Paper & Board packaging products, including paper cups, fast food wrappers, and corrugated boxes, meeting, of course, the functional needs of the paper such as printability, flexibility, and gluability.

Functionality	Market Assessment Tests	Food contact	Bio Renewable Content	Market Specifications
 Grease and Oil barrier	3M Kit (up to 16) TAPPI T559 (up to 12) Fat Kit (6 min, 60°C) Food Contact	DFC	up to 25 %	<i>Example: Burger Wrap</i> Tappi level 6 minimum
 Water barrier	COBB – g/m ² /time (from 5 to 30 min, depending on substrate)	DFC & Indirect FC	from 5 % to 30 %	<i>Example: Cup</i> 3 g/m ² /5 min 15 g/m ² /30 min
 Water vapor barrier	Moisture Vapor Transmission Rate (MVTR) – g/m ² /24 h Tropical conditions: 35°C, 90 % RH Standard conditions: 23°C, 50 % RH	DFC & Indirect FC	from 15 % to 35 %	<i>Example: Copy Paper Wrap</i> < 20 g/m ² /24 h
 Multi-functional	COBB – g/m ² /time Grease – Tappi T559	DFC & Indirect FC	from 0 % to 40 %	<i>Example: Wrapping Paper</i> < 20 g/m ² /5 min Tappi level 6 minimum

UNILAC barrier coating formulas offer additional advantages as:

- Compatible with most standard coating application equipment and methods
- Heat-sealable, with non-heat-seal options available
- increased recyclable and repulpable
- May be compostable, with many applications capable of achieving EN 13432 certification
- Compliant with global food contact standards



Have you heard about UniNATURE? Our new sustainable solution UniNATURE meets the requirements of brand owners and packaging converters. Ask your Siegwerk representative now!

Things go better when done together

A circular packaging industry needs innovation as much as it needs collaboration along the entire packaging value chain. Proactive exchange and close collaboration are key to testing and optimizing new ideas and jointly developing responsible and sustainable packaging solutions that truly have a positive impact.

Replacing films with barrier coated papers often requires a reTHINK of the package structure. Siegwerk's experienced application support teams are uniquely placed to advise customers on coming up

with ink solutions that are sometimes necessary to transition to barrier-coated paper packages. Siegwerk is committed to a comprehensive approach to sustainability. The company is always mindful of the environmental, economic, and social impact of its product development, entire production process, its customer relationships, as well as its supplier selection and employees. Sustainability means progress to Siegwerk. That's why the company is driving this new development of barrier coatings.



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● *Production of water-based print inks
for Paper & Board applications*



High performance print inks for Paper & Board

Siegwerk is an international, market-leading manufacturer of print inks for all kinds of packaging. For Paper & Board applications, Siegwerk offers flexographic inks for all standard forms of packaging – from corrugated cardboard to carrier bags and bags, tissues and serviettes to beakers and displays. Wrapping paper and shopping bags can also be printed excellently with the print inks from Siegwerk.

The user-friendly ink series reduces wash intervals, creates brilliant print results even at high speeds, and allows for easy print ink management. Alongside the very broad spectrum of varnishes and high-concentrate print inks, the additional positive features include high productivity.

www.siegwerk.com

