

Printing inks and coatings with heart & soul





# **Printing inks and coatings – and much, much more**

# Welcome to Siegwerk

You know us. Every day you encounter Siegwerk printing inks and coatings at newsstands and gas stations, in supermarkets and department stores. In fact, everywhere you see printed products such as yogurt containers, beverage bottles, soup sachets, glossy magazines, paper cups and cigarette packs appealing to consumers.

With more than 5,000 employees worldwide, Siegwerk is one of the market leaders for high-quality printing inks and coatings for packagings and publications. In this brochure, you will learn more about our competitive products, reliable solutions and individual services, which often go beyond the printing ink and coating itself.

See how we developed from a "calico factory," a textile printing shop, to an internationally successful printing ink and

coating manufacturer with innovative, sustainable and circular packaging solutions. Although we have constantly been adapting to our changing world, the proven values of a family business have stayed with us: independent and target focused, flexible and competent, committed and reliable. The company shares are in the hands of the seventh generation of the same family of owners with Alfred Keller as the current chairman of the supervisory board. This guarantees a business policy which is both innovative and sustainable.

People have been and will always be the focus of our company. In the field of consulting and production, application engineering and supply – the "Siegwerkers," as the employees like to call themselves, work with passion on behalf of our customers. You will read more about what makes a Siegwerker later on.

Siegwerk designs, develops and produces customized printing inks, coatings and primers. Together with our customers, we optimize the structure, functionality and cost-effectiveness of their print jobs. And we help design solutions for the circular economy.

# MILESTONES IN THE SIEGWERK CORPORATE HISTORY

#### Market leader out of tradition



Rolffs' calico printing works is relocated to today's company headquarters in Siegburg.

1844

Establishment of "Siegwerk Chemisches Laboratorium GmbH ("chemical laboratory company").



Production resumed. As well as printing inks, products also include glazier's putty, roof paint, corrosion protection, adhesives and nail varnish.

1945



Foundation of the manufactured goods business "Rolffs & Poensgen" in Cologne.

1824

Development of a modern laboratory for the production of inks based on chemical syntheses which are suitable for copper rotary printing.

1844

1911



1920



for the first colored glossy magazines. At



Supply of printing inks the end of the decade. Siegwerk is the largest manufacturer of gravure inks in Germany

The beginnings of Siegwerk go back to the 1820s. At the time, Christian Gottlieb Rolffs founded the manufactured goods business "Rolffs & Poensgen" in Cologne together with his brother-in-law. Rolffs and his successors were soon setting successful trends, such as the printing on cloths, and advancing the printing industry with many innovations. With this they laid the foundation stone for a successful, market-leading printing ink business which brings color into everyday life all over the world. As the 7th generation of owners, Alfred Keller is today the Chairman of the Supervisory Board.

First manufacturing plant in the USA goes into production.

to trade in a 2005

sustainable 2019 manner.

**Board resolution** 

2008

commitment to SOS Children's Villages worldwide.

TEN YEARS OF SUPPORTING

SOS CHILDREN'S

**VILLAGES WORLDWIDE!** 

2020

Siegwerk wins Sustainability Awards

2022

Siegwerk celebrates ten years of 2022

Acquisition of LaSorgente Spa



If you would like to see more milestones please visit our homepage https://www.siegwerk.com/en/company/history.html







Siegwerk opens Europe's largest fully automated production facility for printing inks and coatings in Siegburg, Germany.

# What makes a "Siegwerker"?

# People in focus

Our corporate culture has evolved over generations. It has been molded and driven by our employees, which is why new colleagues should be able to easily identify with our values.

A "Siegwerker" lives and breathes our values. This in turn creates the special "Siegwerk Spirit" we see at work every day.

Siegwerk is a dynamic global company that is run by the seventh generation of the same family. Our corporate philosophy aims at remaining independent and autonomous over the long term. All employees share this aim and work consistently towards the same goal.

This requires a good deal of commitment and motivation, but also resilience and a down-to-earth attitude. A "Siegwerker" works on solutions within a team and is always loyal and reliable. Our tone always remains friendly and respectful, and we remain resolute in our aims.

We are near to our customers all over the world and offer them excellent, forward-looking solutions. We want our business relationships to become long-term partnerships with benefits to both sides – and we are searching for colleagues who can help us achieve that.

Motivation and commitment of each and every "Siegwerker" form the basis of our international growth, whilst knowledge exchange beyond all borders ensures that all international customers can profit from our expertise. We work as a global team, and our business as well as our clients benefit as a result.







# They are valuable to us

# We invest in our employees

Siegwerk has all of the advantages of a genuine market leader: an international set-up, professionally managed with a long term strategic mindset. Nevertheless, despite the fact we are a global player, we are not an anonymous group of companies. As a family business, Siegwerk is characterized by a strong sense of togetherness. Our goal-oriented teams are formed from skilled individuals, working as part of a close-knit, global team. Short decision-making channels and a strong corporate culture with a strong sense of responsibility shape our daily lives.

Our 5,000 employees work in over 30 countries – ideal conditions for gaining and developing international experience. Foreign assignments, job rotation and career planning are essential components of our ongoing development plans.

A "Siegwerker" always has the freedom to adapt their work to their individual situation. In regular individual feedback and

development discussions, the aims of the company and the employee are discussed and balanced. Then, we do our absolute best to care for all individual needs and wants – whether that's advanced training courses, specific target agreements, international secondments or more.

We offer excellence programs which are used both as a platform for advanced training courses and for international exchanges. In addition to individual advancement, our employees also have a structured range of further training opportunities at their disposal.

We offer all of these measures with the firm belief that investments in people are the best investments we can make.

Current vacancies can be found in our careers website at www.siegwerk.com/en/career/career.html. We encourage you to explore and find out more!

# **You can rely on Siegwerk**

Close to our customers and with top products around the world

Siegwerk builds on a modular production network in order to provide its business partners with what they most urgently need: high-performance printing coatings. The basic inks and coatings are therefore produced at our parent plants, the "Centers of Excellence."

"Blending Centers" at more than 40 foreign subsidiaries around the globe ensure that our products are then matched to individual customer requirements. Deliveries are made promptly, precisely when the inks are needed: "just-in-time" – and with the desired performance.

Printing ink and coating solutions from Siegwerk are as unique as our customers. Colors here are not "off the shelf," but out of the technology lab.



# Close to the customer, worldwide

### Quality and service add up

Thanks to our international production and service network, Siegwerk has a global presence. Our products and solutions, consulting and support services are available worldwide.

Experienced and highly qualified employees assist customers in developing new products, and provide support with their production processes on-site at packaging and publication printing plants.

The use of defined base colors and intermediate materials guarantees consistent product quality; a fact valued by international customers and business partners, because they depend on getting their printed or packaged products to their consumers around the world in a uniform quality and visual appearance.



# Process Management and Consulting (PMC) – individual and tailor-made services

### Achieving the best solutions together

# Did you know that we are more than an ink and coating producer?

Siegwerk offers a broad range of additional services to meet our customers' requirements, namely PMC. PMC stands for Process Management and Consulting. Our goal is to enhance transparency, improve productivity, increase efficiency and thereby contribute to the sustainable company development of our customers. Together, we analyze the status, identify potential savings, optimize production processes, and train staff in methods practically.

We support color and ink management as well as the printing and finishing processes.

#### Our PMC Services include three pillars:

- Colorwerk We support you from Brand Owners to the printed product with our Color Management Program.
- On-Site Consulting We collaborate at your facility to improve your value chain.
- InHouse We manage your ink room for maximum efficiency.



- Ink Development & Performance Optimization
- · Ink Portfolio Simplification
- · Packaging Development Support
- · Ink & Solution Trainings
- · On-press Support
- Color Management & Colorimetric Support



# CONSULTING & INHOUSE:

- On-Site Consultina
- · InHouse
- · Benchmarking
- · Workshops & Trainings



#### PRODUCT SAFETY & REGULATIONS:

- Quality Assurance & Testing Capabilities
- Product Safety & Regulatory Support
- Product Safety Trainings



### How we help – and what we achieve together

Our customers focus on delivering high-quality orders on time, but daily operations often hide untapped potential. Our On-Site Consulting provides an Outside-In perspective, identifying improvement potentials and overcoming subjective reservations. Benchmarking with industry standards and collaboration with your experts is key to drive successful projects.

Ink rooms also offer significant opportunities. Our consultants can recommend ways to boost efficiency, or our InHouse teams can manage your ink room, ensuring it's organized and effective. To ensure sustainable results, we offer tailor-made workshops and trainings. We answer your questions in on-press workshops, we refine your processes, and drive improvements for you. **We're happy to get in contact with you!** 

# **Technical support**

# We make things run smoothly

A high-class packaging design combined with a high degree of packaging functionality requires innovative printing inks. We work with you to develop custom ink portfolios to match your requirements. Our experts provide ink formulations, which have exactly the right properties and the functionality you need for your applications.

We will assist you as quickly as possible in case of new challenges or if problems occur with your printing presses. Your personal contact will provide you with solutions and enhancements on site. We are not satisfied until everything runs like clockwork. Tests and regular quality checks by our experts ensure your print operations run smoothly.

We also help your employees get up to speed with current quality assurance methods. The result is minimum downtimes and a high degree of profitability.

#### We offer technical support with regards to:

- · Product safety and regulatory
- · Ink development and performance optimization
- · Quality assurance & testing capabilities
- · Packaging development support
- $\cdot \ \text{Ink portfolio simplifications} \\$
- · Short-term trouble shooting
- · On-Press support



# We assume responsibility for safe products

# On the safe side with Siegwerk

When it comes to product safety, our customers can count on Siegwerk as a reliable partner. We place great value on the highest safety standards and environmental protection. The safe use of our printing inks and coatings and safe end products on the supermarket shelves have top priority for us. Siegwerk offers suitable inks and coatings for many applications, especially for the sensitive segment of food packaging. Printing inks and coatings for food packaging must fulfill several legal requirements and a safety evaluation for migrants.

Located in a "sandwich position" of the packaging chain, the printer and converter has to deal with a multitude of aspects and parameters, whilst converting the various material streams (e.g. substrates, inks, coatings, adhesives) into the readymade printed packaging.

It is due to this multitude of parameters, all of which have an influence on the product safety profile in addition to the legal and brand owner compliance status of the final food packaging. Expert knowledge as well as open and transparent information are key in order to produce a high quality, fully compliant and fit for its purpose printed food packaging.

Global Product Safety + Responsibility (G-PSR) stands for a high level of expertise, full transparency and professional support on questions around product safety.

#### Our guidance and support for our customers include:

- · Strict raw material selection process in order to avoid unwanted substances of concern
- Risk Assessments for Non Intentionally Added Substances (NIAS)
- Pro-active distribution of Statements of Composition (SoCs) for food packaging inks which enable customers to perform a Declaration of Compliance (DoC)
- · Offering trainings and workshops and managing the content of the Ink Safety Portal which is an online platform to share and spread our PSR Know-how along the packaging chain.

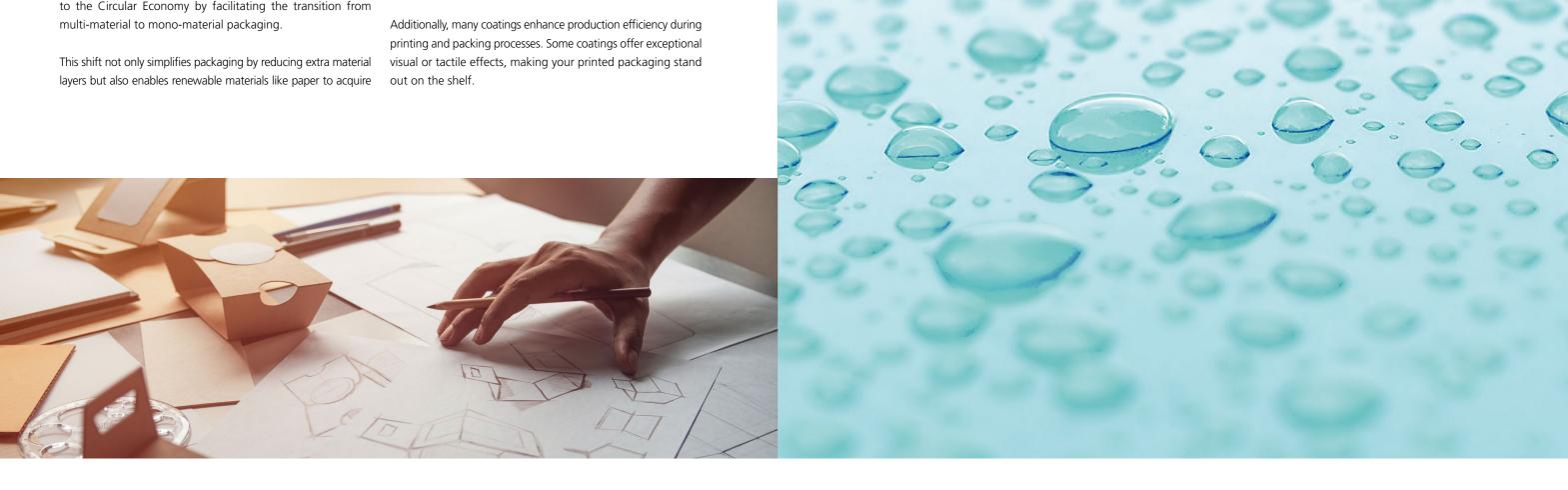
Siegwerk provides numerous important and informative documents ready to download from www.siegwerk.com, such as brochures, whitepapers and information leaflets on product safety – everything at a glance. Are you interested in more technical details please register for our INK SAFETY PORTAL https://ink-safety-portal.siegwerk.com/

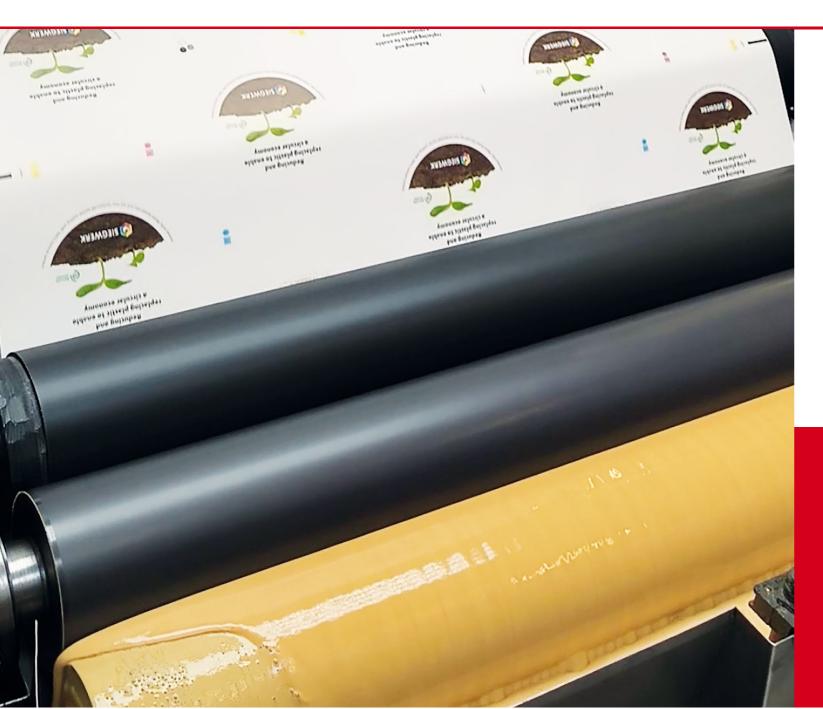
# **Enabling packaging's full performance potential**

# How coatings can improve your packaging

Coatings and varnishes are essential for improving the performance and durability of packaging. They contribute significantly to the Circular Economy by facilitating the transition from multi-material to mono-material packaging.

the necessary functional properties to replace other packaging materials, broadening their application range.





# CIRKIT: Siegwerk's print coatings and varnishes portfolio

Siegwerk's CIRKIT coatings are meticulously designed to meet your specific requirements, maximizing your packaging's performance potential.

Our high-quality products cater to a wide range of applications, substrates, and performance needs, from primers to functional and decorative coatings. Each innovation prioritizes consumer safety, functionality, and sustainability.

Our portfolio includes both water-based and solvent-based technologies for various coating processes and performance requirements, suitable for both paper and film applications (see table below).

Find out more about our coatings portfolio on our website https://www.siegwerk.com/en/inks-coatings/coatings.html.

### SIEGWERK'S COATINGS AND VARNISHES PORTFOLIO:

#### **BARRIER COATINGS**

e.g. against liquids, oil and grease, water vapor, oxygen and UV light

### **HEAT SEAL COATINGS**

e.g. for plastic films, fiber-based substrates, and aluminum foil

#### PROTECTION COATINGS

e.g. for heat resistance, anti-scratch, anti-slip, and anti-static

#### PRIMERS FOR DIFFERENT SUBSTRATES

incl. plastic films, fiber-based substrates and aluminum foil including delamination and deinking primers

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#### **EFFECT COATINGS**

e.g. for haptic, high matt, or high gloss effects

# Circular Coatings for Sustainable Packaging

Siegwerk has developed the circular product portfolio called CIRKIT, that covers a broad range of functional coatings equipping both paper and mono-plastics with the functionalities needed (such as barriers, sealability, etc.), while ensuring recyclability or reusability.

The portfolio consists of functional and barrier coatings giving barriers e.g., against oxygen, water or grease. With the use of CIRKIT GreaseBar and CIRKIT HeatGuard, Siegwerk demonstrated

that these innovative coatings enable the switch from multimaterial to mono-material structures for pet food packaging, ensuring the same packaging and process performance while being fully recyclable. CIRKIT GreaseBar provides an effective grease barrier, while CIRKIT HeatGuard ensures high-end sealing process efficiency, maintaining the structural integrity and freshness of the filled good.

### Advancing Biorenewability

Siegwerk's bio-based ink series and CIRKIT coatings offer the next generation of sustainable water-based inks and coatings for paper and board applications, formulated with a high Bio Renewable Content (BRC).

These products also include Siegwerk's two innovative water-based coatings, CIRKIT NATUBAR PR4798 and CIRKIT NATUBAR CT4326, that have achieved home compostability certification from TÜV Austria. These coatings are formulated with non-

modified natural polymers, designed to enhance water and grease resistance in packaging applications, primarily used for paper plates to replace lamination.

By offering a coating solution that is recyclable, compostable, and biobased, Siegwerk continues to lead the industry in providing environmentally friendly packaging solutions.



# The needs of future generations in mind

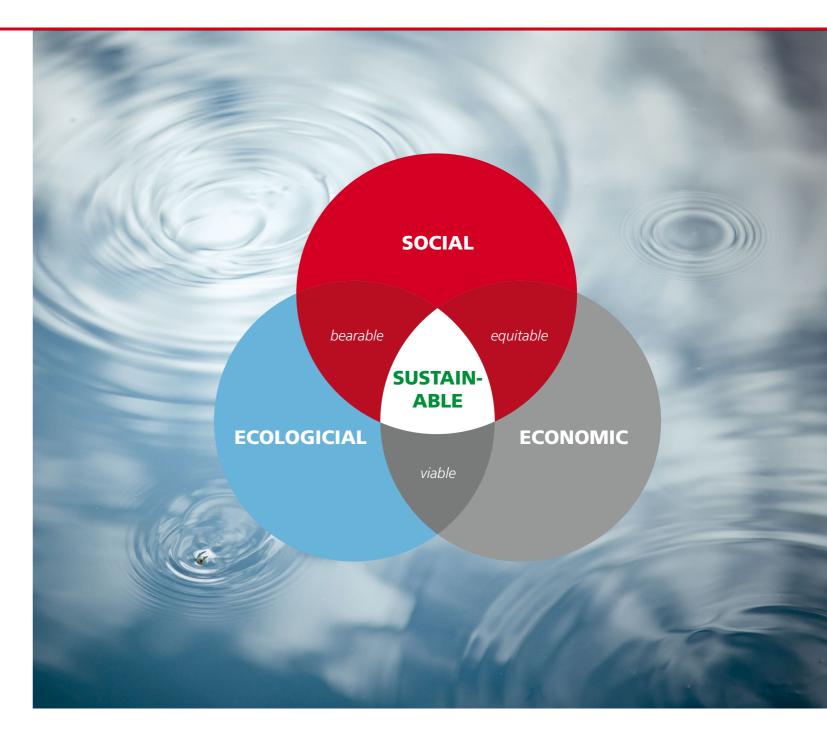
# A failing linear system

At Siegwerk we believe that a world without packaging is not possible. Packaging is an integral part of our modern way of life. It provides safe water and food and keeps medical and hygiene products sterile, for example. While each packaging substrate has its advantages, plastic has become the most popular packaging material: it provides highest functionality at lowest production costs. In addition, it is lightweight and durable. Although, paper, glass and aluminum also have their advantages as packaging substrates, plastic has become the most popular packaging material due to its high functionality and its comparatively low production costs.

However, plastic packaging also comes with challenges as it enters a failing system. Our linear economy follows the principle "take-make-use-dispose." This results in losing about 90 percent of plastic after a single use, as only 10 percent of the world's plastic packaging has been recycled. And even more serious: Around 30 percent (>50m tons) of the annual plastic packaging waste is not formally disposed of but leaks into the environment.

## **3 PRINCIPLES OF A CIRCULAR ECONOMY**







# Welcome to a Circular Economy

The linear system of "taking, making, using and disposing" has no future. It rather puts a risk on our environment and has negative economic consequences. That is why our approach is not only about improving existing packaging solutions but to transfer packaging to a new way of management. Away from a linear towards a circular model, that decouples economic development from using finite resources, allowing for well-being while respecting the natural boundaries of our planet.

We see the Circular Economy as the solution to the growing packaging waste problem because it allows to combine economic development with the protection of our environment.

By moving from a linear to a circular model, the number of resources entering the system is limited, their utilization along the value chain is maximized and the generation of waste is stopped. We achieve this by reducing waste and pollution when taking, making or using materials and products, keeping materials in use and regenerating natural systems.

### Carbon Neutrality

Siegwerk is committed to reducing emissions through a comprehensive sustainability strategy. We aim to achieve carbon neutrality in our operations by 2025 and reduce Scope 3 emissions by 25% by 2030. Our efforts include reducing energy consumption, improving energy efficiency, and investing in renewable energy sources in our own operations. Furthermore, we are engaging with our suppliers to drive improvements in the value chain to reduce carbon emissions. We

have implemented numerous projects, such as installing solar panels, optimizing production processes, and internal carbon shadow price to minimize our carbon footprint. Additionally, we engage our employees in training and idea-generating sessions to foster a culture of environmental responsibility. Our 3rd party verified Corporate Carbon Footprint (CCF) and Product Carbon Footprint (PCF) ensure transparency and reliability in our carbon data.

# Human Rights

ethical business practices and sustainability. We uphold human rights through our Human Rights Policy, guided by our Human Rights Officer and the Supplier Sustainability Hub, ensuring compliance with the German Supply Chain Due Diligence Law in

Siegwerk's Human Rights Initiative reflects our commitment to our own operation and supply chain. Our Human Rights Guiding Principles emphasize collaboration, risk acknowledgment, and continuous improvement. By engaging with our suppliers, we aim to drive improvements in human rights and environmental standards, contributing to a sustainable and equitable future.

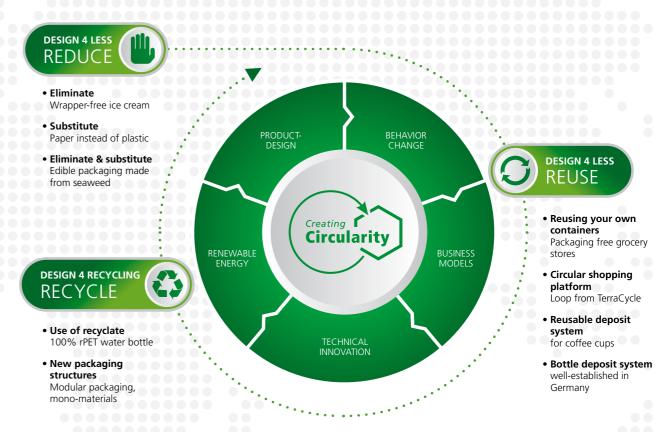
### Let's rethink packaging for a Circular Economy

At Siegwerk, we care for our environment and take responsibility for our planet. Thus, we want to become a true circular solutions company by enabling circular packaging through our ink and coating solutions but also venture beyond our traditional business model. This creates eminent value for our customers, puts new packaging solutions on the market that drive the circular transformation, and ultimately reduces the waste we create today.

For the packaging industry, there are basically three pillars to build a Circular Economy: reduce, reuse and recycle packaging. Reducing means that the number of resources, and in particular finite resources, entering the cycle is being reduced by waiving

unnecessary packaging parts, like e.g. overpacks solely for marketing purposes, or substituting oil-based plastic through renewable resources, such as paper. Reusing means that all packaging entering the cycle is being used multiple times before disposal in order to utilize the resources to the fullest maximum of all used resources. Recycling means that packaging waste is converted into reusable material through respective sorting and recycling technologies (mechanical and chemical). In a Circular Economy, recycling is the only acceptable scenario for disposal, even though the need for any disposal should be prevented in the first place.

### RETHINK PACKAGING FOR A CIRCULAR ECONOMY



## Siegwerk's circular solutions

Inks and coatings play an important enabling role for the realization of circular packaging solutions. They may support the reduction, reuse and recycling of packaging. That's why Siegwerk is actively driving the formulation of inks and coatings concretely addressing the needs of circular packaging solutions.

Today, we have a strong track record in customer-specific ink development projects for circular packaging solutions that – among others – increase recyclability, enable composting, and support packaging based on renewable materials. Our circular solutions are flexible regarding substrates, printing technologies and ink systems. Here are a few examples:

- Inks, OPVs and barrier coatings equipping paper with highest functionality, including hot and cold sealing solutions, mechanical and chemical resistance properties and designed for the paper recycling stream.
- Inks and coatings enabling switch from multi-material to recyclable mono-PO packaging structures by giving mechanical or barrier functionalities such as grease or oxygen barrier coatings or heat-protection.

- Inks, OPVs and barrier coatings formulated with a high biorenewable content. In addition, bio-renewable content for all our products is available and can be shared with customers.
- Inks and primers for easy de-inking in line with set process standards, examples include the Association of Plastic Recyclers (APR) accredited WB or UV alkali strippable primer – for PET shrink sleeves.
- Inks and OPVs not interfering with compostability of paper or compostable plastic packaging, examples include ink series fulfilling guideline of EN 13432, OK Compost Home.
- Inks and OPVs provide flexibility and scalability for re-use models, including digital printing for last mile customization etc.

We are constantly working on new sustainable ink technologies and functional formulations to further expand our circular solution offerings and enable new circular packaging applications. Thereby, all inks and coatings are designed to meet your individual requirements unleashing packaging's full potential and enabling its use in a Circular Economy.

### Deinking and Delamination Technology

Siegwerk offers process know-how and product solutions that enable the delamination and de-inking of packaging, ensuring recyclability and high-quality recyclate. The technology can be used for shrink-sleeve applications, but also for PO laminates. By delamination and quick and efficient removal of inks and coatings during the washing process, uncolored recyclate in high quality can be achieved.

In order to drive the concept of the Circular Economy forward, we are also an active member of leading initiatives such as CEFLEX, APR, Plastics Recyclers Europe, RecyClass, the European Plastics Pact, Projekt STOP and more. And we rethink our own operations and business, creating more circular productions and offices and developing new circular business branches beyond inks. To find out more about our memberships and partnerships, please have a look at our website <a href="https://www.siegwerk.com/en/rethink-packaging/our-collaborations.html">https://www.siegwerk.com/en/rethink-packaging/our-collaborations.html</a>.



# We place emphasis on responsibility

### Initially at headquarters, today worldwide

**We care!** In everything we do, we keep an eye on our employees, their families, and on the environment – by ensuring occupational and product health and safety. Responsibility is part of our DNA. As early as 1843, our founders established Siegwerk's own company health insurance, later supplemented by a disability,

widows and orphans fund. In the 1850s, Siegwerk was one of the first companies in Germany to provide a factory canteen. And because we want to be a good neighbor, we have vastly extended our social commitment beyond our factory gates.

### Lighthouse projects for the future of children

Since children are our future, our social activities are focused on the support, training and development of children and young adults. In 2010, Siegwerk began a close partnership with SOS Children's Villages worldwide which is a non-governmental organization focused on supporting children without parental care and families at risk. Once a year, Siegwerk donates

100,000 euros to SOS Children's Villages, and together we support relevant projects near our sites around the world. We call these our lighthouse projects. Our employees are personally and actively involved in these projects. For this long-standing commitment, Siegwerk has been awarded the SOS Children's Village Cup three times in a row.

#### **Examples of our lighthouse projects:**

- **Mexico, 2010:** Construction of a new house for eight children and their SOS mothers
- India, 2011: Siegwerkers equip a school for healthcare screenings, renovate classrooms and volunteer to give lessons and help with technical support
- Brazil, 2013: Maintenance of children's village, where they can live self-determined and learn
- Vietnam, 2014: Support for Hermann Gmeiner school in SOS Children's Village at Ben Tre. Siegwerkers regularly bring gifts, prepare food, and play with the children
- Colombia, 2018: Support of "The Laboratory of Dreams" project which is designed to support young mothers. It includes a
- digital library to improve computer and online skills.
- Mexico, 2020: Support of workshops which focus on proper waste management and new PCs and a digital learning platform which can be used as a modern way to teach children diverse topics such as problem solving and English.



#### YouthCan!

Since 2018, Siegwerkers around the world have provided their skills, expertise and time for the global employability initiative "YouthCan!" by SOS Children's Villages. The aim is to encourage young people to live self-determined and independent. Dedicated

local Siegwerk employees are committed to the professional qualification of the young people, to act as role models, trainers and mentors and to provide important insight into the corporate world.

## Examples of our local social projects:

Our extensive partnerships with SOS Children's Villages are complemented by many smaller initiatives around the world, which are tailored to the individual needs of the local communities. They are as diverse as our Siegwerkers themselves:

- Germany: Sponsoring of Nikolaus Foundation, which supports language development of local primary students, and support of Technology and Natural Sciences in Schools ("TuWaS!") initiative
- **USA:** Siegwerkers package meals for Meals from the Heartland to feed people around the world
- Malaysia: Siegwerkers support children at the Kiwanis Down Syndrome Center

- · China: Support of autistic children
- **Singapore:** Participation in a charity run to support the Children's Charities Association of Singapore
- **Pakistan:** Provides comprehensive support for local children through active support of the Helm Foundation.
- **Switzerland:** Siegwerkers act as godmothers and godfathers for children at a local children's home
- Italy: Donation of a minivan for transporting local handicapped residents

If you want to learn more about our CSR activities, visit our website: www.siegwerk.com/en/sustainability/people-and-community/ corporate-social-responsibility.html

# **Achieving more collectively**

# The whole is more than the sum of its parts

We are involved in a number of organizations, some of which pursue completely different aims. But one aim unites us all: we want to become better and better together with others – in the interests of our customers and in the interests of consumers!

Besides the active memberships in various industry associations, here are four over-arching examples:

#### 1. CEFLEX

**Siegwerk has joined CEFLEX to support the drive towards a circular economy.** CEFLEX is the collaborative initiative of a European consortium of companies and associations representing the entire value chain of flexible packaging.

 The CEFLEX Mission is to further enhance the performance of flexible packaging in the circular economy by designing and advancing better system solutions identified through the collaboration of companies representing the entire value chain.

#### The CEFLEX Vision

· By 2020 flexible packaging will have a comprehensive sustainability and circular economy roadmap for flexible packaging, including widely recognized design guidelines and a robust approach to measure, demonstrate and communicate the

significant value flexible packaging adds to the circular economy.

#### The roadmap will address:

- · Resource efficiency.
- · Waste prevention benefits.
- · Sustainably returning recycled flexible packaging materials to supply identified end markets.
- · Elimination of leakage into the environment.
- · By 2025 there will be an established collection, sorting and reprocessing infrastructure/economy developed for post-consumer flexible packaging across Europe, based on end of life technologies and processes which deliver the best economic, technical and environmental outcome for a Circular Economy.



#### 2. Sedex

**Siegwerk has joined the Sedex global network.** This is a non-profit organization which is committed to making improvements in global supply chains. Siegwerk is therefore the first printing inks and coatings manufacturer worldwide to commit itself to the continuous improvement of ethical behavior along its supply chain.

Sedex stands for "Supplier Ethical Data Exchange.": the exchange of data from suppliers on ethical questions, and as a web communication platform offers the opportunity to exchange views and information with industry representatives and customers on:

- · working conditions
- · health and safety
- · environment
- · business practices.

Transparency with respect to social and ethical responsibility is at the heart of the organization, which was founded in 2004 and now has over 36,000 members. Becoming a member of the world's largest association of its kind reflects the integrated approach which Siegwerk represents as a link between the supplier and its customers.

## 3. Project STOP

Siegwerk joined Project STOP (Stop Ocean Plastics) to combat plastic pollution in Indonesia. By becoming a strategic partner of Project STOP, Siegwerk actively supports the creation of sustainable waste management systems in Indonesia to eliminate leakage of plastics into the environment. In addition Siegwerks wants to underline its strong commitment to actively drive the realization of a global circular packaging industry by joining project STOP.

Project STOP is a frontline initiative, co-founded by Borealis and SYSTEMIQ, that designs, implements and scales circular economy solutions to marine plastic pollution in Southeast Asia. Since its launch in 2017, Project STOP has welcomed various industrial and governmental partners designing, implementing, and scaling circular economy solutions to prevent plastic waste pollution. Siegwerk is now joining this strong network of system relevant players that are committed to support the establishment of on the ground solutions in Indonesia.

# 4. Holy Grail 2.0

Siegwerk joined the Holy Grail 2.0 initiative in 2020 to improve sorting and recycling rates for packaging in the EU. The objective of the Digital Watermarks Initiative HolyGrail 2.0 is to prove the viability of digital watermarking technologies for accurate sorting and the business case at large scale.

Under the auspices of AIM, the European Brands Association, the initiative investigates a pioneering digital watermarks technology for packaging in the European Union. This smart technology could revolutionize the sorting of packaging waste and the quality of recycling. Siegwerk is one of more than 85 companies and organizations from the complete packaging value chain which are part of HolyGrail 2.0. The ultimate goal is to achieve a truly Circular Economy.

To find out more about our partnerships and memberships please check our website https://www.siegwerk.com/en/sustainability/associations-memberships.html



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