

PACKED WITH EXPERTISE



# LET'S RETHINK PACKAGING TOGETHER

ACTEGA  
AT A GLANCE

## PACKED WITH EXPERTISE

ACTEGA is a division of the internationally operating specialty chemicals group ALTANA. With production facilities in Europe, North and South America and China, ACTEGA develops, produces and distributes specialty coatings, inks, adhesives and sealing compounds with a focus on the packaging industry. Following the motto "Packed with Expertise", ACTEGA does not only offer technically sophisticated product solutions, but also meets the high safety standards of the food, beverages, pharmaceutical and toy industries. Whether for flexible and metal packaging, folding cartons or labels, products by ACTEGA provide packaging with a high-quality appearance and innovative functionalities.

## BRAND PROMISE AND VALUES

Our brand identity goes far beyond the product. It is oriented towards the needs of our customers. We think and act innovatively, are agile and create value. To achieve this, sustainability, regulatory compliance and high safety standards form the guidelines for our daily actions.



SUSTAINABILITY  
AT ACTEGA

## LET'S RETHINK PACKAGING TOGETHER

Our commitment to sustainability drives us to not only operate sustainably as a business ourselves, but to ensure that we are taking steps to support a sustainable future for our customers and the packaging industry as a whole. We take a holistic approach to achieving this goal, looking at all aspects of what it means to offer a sustainable solution. This results in the extensive range of products you see today, and those in development for tomorrow, that put consumer safety, environmental health and packaging recyclability at the forefront, without compromising the product quality ACTEGA is known for.



**Dennis Siepmann**  
Global Head of Sustainability at ACTEGA

***"In the packaging industry, sustainability is no longer a 'nice to have'. It is now most definitely a fundamental requirement and expectation of the market. Let's rethink packaging together."***

## STRONG TACTICS TO HELP US LIVE SUSTAINABILITY

What we need today is to rethink global economies essentially linked to the exploitation of resources. We need to transform every element of our "take-make-waste" system and ask ourselves how we want to manage resources, make and use products, and what we intend to do with the materials afterwards.

An alternative is the circular economy approach: There is no waste. Everything has a new use and returns to the cycle.

In terms of packaging, we need to consider two main impacts on sustainability:

- The CO<sub>2</sub> impact
- The end of a packaging's life cycle (waste)

To avoid these impacts, we must develop strong tactics to help us live sustainability. ACTEGA has taken up this challenge and is already making important contributions to the approach of a circular economy.

*"We must develop strong tactics to help us live sustainability."*



## OUR APPROACH TO A CIRCULAR ECONOMY: 5 TACTICS



### TACTIC #1: RECYCLE

In a circular economy, it is important to use resources effectively and to make packaging usable, reusable and recyclable for as long as possible. Perhaps the most obvious step towards waste reduction is to improve the recyclability of end products. Our goal at ACTEGA is to contribute to end products that can be recycled with minimal impact on the recycling process. That's why we are constantly looking to contribute to solid and viable alternatives to non-recyclable or difficult-to-recycle packaging solutions that allow recycling widely and easily utilizing standard practices.



### TACTIC #2: REDUCE

Sustainability goes far beyond what happens to the end product. The aim is to increase sustainability throughout the entire production chain and to optimize processes. It is important to save material wherever possible. After all, this also influences the CO<sub>2</sub> balance, since less material usually means less energy and lower transport costs. At ACTEGA, we invest heavily in new technologies and innovative product solutions to reduce material and waste volumes, lower energy consumption and to make processes even more efficient.



### TACTIC #3: DISPLACE

The objective of displacing materials that are difficult or impossible to recycle through innovative product solutions, as well as contributing to the design of better processes, is closely linked to tactics #1 and #2. This may mean displacing PE extruded paperboard with water-based barrier coatings, using silver coatings instead of metallized substrates, or applying a matte coating to glass to eliminate the need for acid etching.



### TACTIC #4: REPLACE

Chemicals should be manufactured to maximize their contribution to society while avoiding risks to human health and the environment. This also means replacing certain substances in product formulations. At ACTEGA, we take this responsibility very seriously. Based on our overarching expertise in chemistry, formulation, and application, we develop innovative and safe solutions that make everyday products better and more sustainable.



### TACTIC #5: DEGRADE

Product design plays a major role in this context. The aim is to enable both the desired product properties and easy recycling of the raw materials used. If individual components of a packaging cannot be kept in the cycle, complete degradability should be a target. To achieve this, strategic partnerships are necessary. ACTEGA is currently developing new supply chains, working with brand owners, raw materials suppliers, and regulatory agencies. This partner-centric approach, utilizing the best and most innovative technology and expertise available today, will hopefully help build a better tomorrow.

## MINDFUL METALLIZATION

### A SOLUTIONARY APPROACH TO LABEL EMBELLISHMENT

As a new category of embellishment, the ECOLEAF technology was developed with sustainability in mind. It changes the way traditional metallization is done – by minimizing wastage and optimizing resources while maintaining a highly reflective and impactful metallic effect. ECOLEAF offers a demonstrably better CO<sub>2</sub> footprint than traditional methods and is ideal for labels.

### METALLIZATION JUST LIKE TRADITIONAL METHODS BUT WITH LESS WASTE

It is well known that the industry standard technology for metallic embellishments, hot and cold foiling, is anything but environmentally friendly. Each year, thousands of tons of foil waste are sent to landfill or burned in incineration plants.

ECOLEAF has reinvented the metallization process by using “on-demand” metallization. Because the technology only places the metal flakes exactly where they are needed, it eliminates the need for PET carrier film and therefore foil reels. And all this while creating outstanding, high shine and unique metallization effects for your packaging.



### MORE BENEFITS:

- Making instead of choosing your own metallic color: As ECOLEAF can be overprinted with any color, a veritable rainbow of metallic effects can be realized.
  - For more flexibility: Your artwork can be changed quickly – which is great in the case of limited editions, late-stage differentiation or personalization.
- Reduce your scope 3 CO<sub>2</sub> impact with ECOLEAF: A certified full life cycle assessment of our technology justifies what we say. Take the next step towards sustainability and attract consumer attention! Collect our new ECOLEAF printed samples and talk to our experts.



## LEAVE A MARK WITHOUT LEAVING A FOOTPRINT

Signite® is a unique labeling technology developed by ACTEGA combining patented low-waste labels and state-of-the-art application machinery.

### THE 2022 LABELS & LABELING INNOVATION WINNER, SIGNITE® ALLOWS BRANDS TO ACHIEVE THEIR SUSTAINABILITY GOALS WITHOUT COMPROMISE:

Approximately 30% lower Global Warming Potential (GWP 100, kg CO<sub>2</sub> eq.) than similarly sized PS labels or shrink sleeves.

Zero die-cutting required = zero waste matrix disposal. Eliminates unprinted clear label areas through Signite's unique printing process.

Ultra-thin, durable construction provides a direct-printed look and feel.

Thinner labels and no face-stock can produce over 40% more Signite® labels per roll, reducing label shipping costs and labeler changeovers.



Available now through our network of printing and applications partners.

For more information, contact the Signite® team at:  
[signite.actega@altana.com](mailto:signite.actega@altana.com) / [www.simplysignite.com](http://www.simplysignite.com)

## ACTGREEN® BARRIER COATINGS

### FOCUSED ON PERFORMANCE AND SUSTAINABILITY

Substances such as oil, grease or water have a strong influence on the quality of packaging. They can penetrate the substrate, damage the printing ink or impair the filling. A barrier is therefore essential in many cases. Traditionally, multilayer substrates are used as a barrier for packaging. A more sustainable alternative is ACTGreen® Barrier Coatings. This product line includes both water-based barrier coatings and aqueous TPE dispersions (YUNICO®) for various applications and end uses. This makes ACTGreen® Barrier Coatings the perfect solution for printers, paper and board converters or paper mills.

### NUMEROUS APPLICATIONS – DIVERSE POSSIBILITIES

ACTGreen® Barrier Coatings provide adequate protection against grease, water, water vapor, dairy products, alcohol, oil or alkali throughout the packaging's lifetime. They can be processed by sheet-fed offset, flexo and gravure printing or by means of various coaters.

As part of ACTGreen® Barrier Coatings, we combine our expertise in coating formulation with the innovative YUNICO® technology. This technology makes it possible to extend the application range of barrier coatings through a unique dispersion production process. As such, we enable the development of customized coatings for different applications and end uses with unmatched regulatory safety – for a new generation of barrier applications.

### A DEDICATED BARRIER TEAM

Barrier coating solutions are highly specialized systems. Often, the barrier effect depends on various factors, such as the filling good, the printing or coating process and the substrate. To make the right recommendation, a number of information is needed. ACTEGA does not only provide a dedicated barrier team, but also relies on a close cooperation with customers and partners as well as on test methods tailored to individual customer needs.



## HEAT SEAL COATINGS FOR MENU TRAYS

### MAXIMUM PROTECTION FOR MENU TRAYS WITHOUT EXTRUSION AND FILM LAMINATION

Thanks to their excellent barrier properties, aluminum meal trays enable a longer shelf life for food and help to avoid food waste. An aluminum-PP composite is the current industry standard, especially for wet pet food. However, this packaging structure is coming under pressure in terms of sustainability, as a mix of materials makes recycling more difficult. Future price increases (EPR fees) for distributors will trigger a trend towards more sustainable products, making mono-materials particularly important.

We have developed a unique heat seal coating system that eliminates the need for extrusion and film lamination while providing a meat-release effect. Brand owners can not only make their packaging more sustainable, but also reduce their costs through simplified and faster processes.

### ADVANTAGES FOR BRAND OWNERS

- Reduction in EPR fees thanks to a new packaging design: a multi-material structure becomes a mono-aluminum structure
- System is also suitable for recycled aluminum, resulting in a CO<sub>2</sub> reduction of up to 93%<sup>1</sup>
- Shorter production time due to elimination of extrusion and lamination processes, saving complexity, costs (storage, machine time) and energy
- Compliance with the highest food safety standards (FDA, China Compliance)
- Processing on existing production lines possible

<sup>1</sup>0.5 kg CO<sub>2</sub> e/kg Al (aluminum recycled in Europe) vs. 6.7 kg CO<sub>2</sub> e/kg Al (primary aluminum produced in Europe).

### PRODUCT PROPERTIES OF OUR HEAT SEAL COATINGS

- Solvent-based system
- PVC-, BPA- and PFAS-NI
- Suitable for direct food contact
- Retort-resistant
- Deep drawable
- Maximum flexibility and formability
- Excellent substrate adhesion even on recycled aluminum
- Meat-release effect – ensures easy removal of the filling from the tray





## ACTGREEN® SUSTAINABLE COMPOUNDS

### THE BEST PROTECTION FOR BABY FOOD

ACTGreen® PROVALIN® is our sustainable PVC and plasticizer free compound for metal vacuum closures with new, revolutionized migration standards, for food safety and consumer protection.

- Food safety: No migration of plasticizers into food
- Sustainability: Without PVC, no dioxin emission during closures burning in the waste incineration plants
- Ahead of regulatory discussions: No titanium dioxide in the formulation
- Recognizable: Visual distinction between PVC and PVC-free compounds by consumers

Recognizable on the **green color**

- Consumers can distinguish between PVC and PVC-free compounds
- A formative consumer test shows that 78% of the parents of babies and young children prefer the green color of the PVC-free sealing compound instead of the white one



ACTEGA: CUSTOMIZED PACKAGING  
SOLUTIONS FOR EVERY MARKET

## THREE BUSINESS LINES SERVING YOUR MARKETS

FOR VARIOUS APPLICATIONS WITH  
DEDICATED PRODUCTS

ACTEGA consists of three business lines, which are specialized in their respective markets:



For **flexible packaging**, ACTEGA develops, produces and distributes coatings, adhesives and printing inks for flexible packaging made of paper, plastic and aluminum foil. The portfolio includes solutions for food, beverages, pet food, cosmetics, pharma and household products along with industrial applications. Our products do not only fulfil numerous functions around the protection of the filling good, but also provide the packaging with a high-quality appearance.

For **metal packaging**, ACTEGA develops, produces and sells compounds, sealants, coatings and printing inks for closures, cans, monobloc and tubes in highly regulated markets such as food, beverages, pharma and personal care industries. We provide high-quality and legally compliant products that ensure a consistent top performance.

For **paper and board**, ACTEGA develops, produces and sells coatings, primers, printing inks and auxiliaries for the packaging and graphic arts industries. This includes paper and board packaging, such as folding cartons and corrugated board, as well as publications and commercial prints. Products do not only provide the substrate with an attractive appearance, but also with defined functionalities. Property profiles are precisely tailored to end-use requirements, such as products for the direct food contact or compliance with regulatory needs of the toy and tobacco industries.

The information contained herein is based on our current knowledge and experience. No warranties, guarantees and/or assurances of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding any products mentioned herein and data or information set forth, or that such products, data or information may be used without infringing intellectual property rights of third parties. Any information about suitability, use or application of the products is non-binding and does not constitute a commitment regarding the products' properties, use or application. Contractual terms and conditions, in particular agreed product specifications, always take precedence. We recommend that you test our products in preliminary trials to determine their suitability for your intended purpose prior to use. We reserve the right to make any changes and to update the information herein without notice. This document replaces all previous versions.