

**SOLUTIONS
FOR CONTAINER GLASS**



**EXTENDING
SWABBING CYCLES
IMPROVING
GLASS QUALITY
MAXIMISING
EFFICIENCY**



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WHY ACMOS?



TAILORED SOLUTIONS

We develop solutions that fit your specific process, equipment and production goals.



LABORATORY AND PROCESS ANALYSIS

Advanced laboratory and process analysis help us to understand your challenges and identify the best solution for your production.



GLOBAL NETWORK

A strong network of over 40 local partners providing fast, reliable support - wherever you are.

ACMOS - MORE THAN CHEMISTRY.
WE ARE **PERFORMANCE PARTNER.**

WHY **ACMOS**?



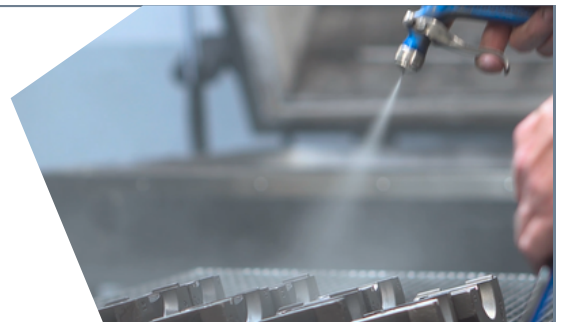
50+ YEARS OF EXPERIENCE

Decades of experience in developing high-performance Coatings and Lubricants for the hot-end applications in container glass manufacturing.



ON-SITE TECHNICAL SERVICE

Our experienced specialists work on-site with your team to solve challenges and optimise your process.



PROVEN PERFORMANCE IMPROVEMENTS

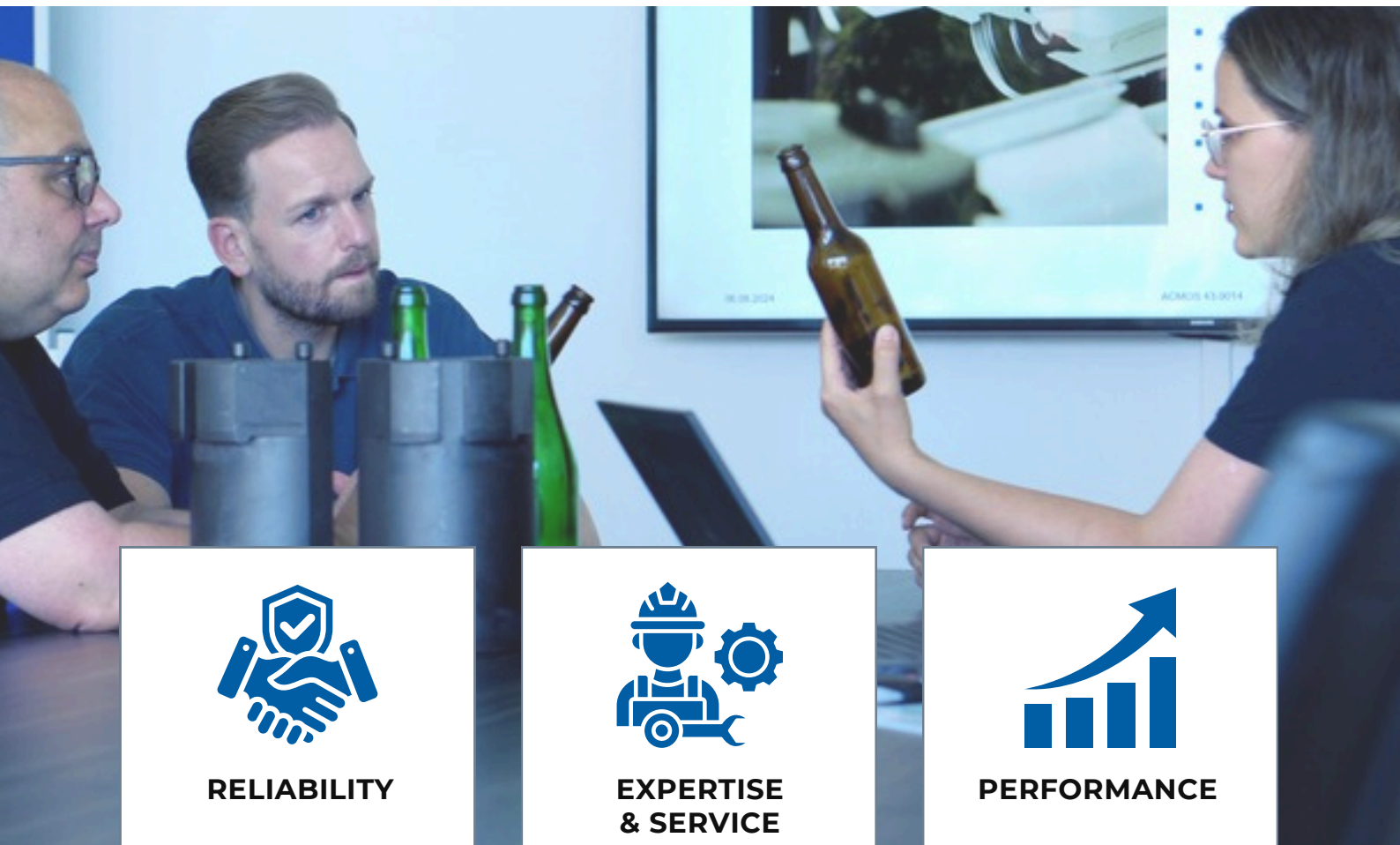
Our product solutions deliver measurable results: longer swabbing cycles, reduced consumption and higher efficiency.



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ADVANCING PERFORMANCE



RELIABILITY

Consistently high quality guaranteed for every batch

Products designed to meet your needs in every step of the process

Expertise whether in technical matters or logistical challenges



EXPERTISE & SERVICE

Experienced employees for worldwide service

Global distribution network supported by more than 40 local partners

Knowledge and expertise sharing with your operators



PERFORMANCE

Improving your processing is our priority

Targeted solutions for minimising usage and lowering operating costs

Focusing on enhancing workplace safety at every step

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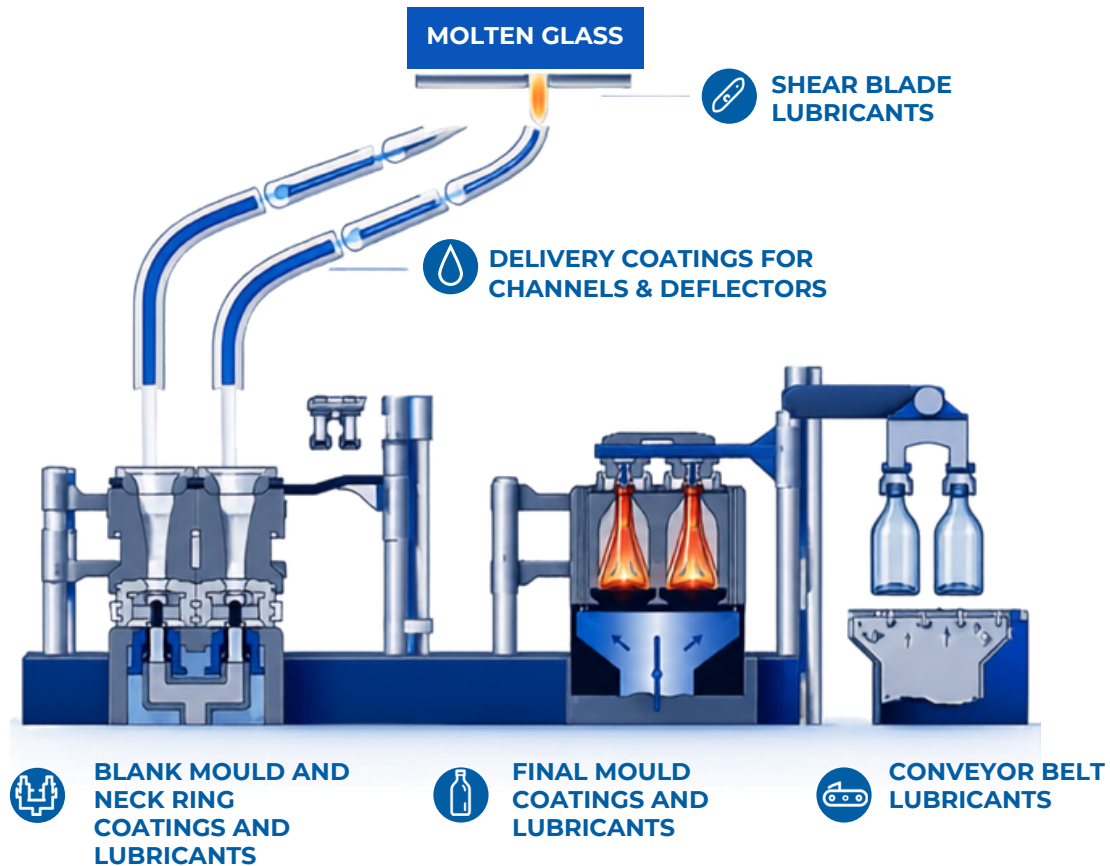
OUR CONTRIBUTION



YOUR GOALS	ACMOS CONTRIBUTION
HIGHER QUALITY Achieve consistent, defect-free glass products	BEST COATINGS AND LUBRICANTS ACMOS high-performance solutions reduce defects such as loading marks, checks and cracks
HIGHER PRODUCTIVITY Increasing efficiency by eliminating lubrication	EXTENDED SWABBING CYCLES ACMOS Mould Coating and Mould Lubricants extend swabbing cycles by up to 2x for stable production
LOWER COSTS Reduction of consumption and operating costs	REDUCED LUBRICANT CONSUMPTION ACMOS solutions lower lubricant usage by up to 50% , and minimise rejects providing measurable cost savings
SAFER OPERATIONS Improve operator safety and reduce manual interventions	SAFER AND CLEANER PROCESS By using our Coatings and Lubricants manual swabbing work is reduced which lead to a safer working condition
STABLE PROCESSES Ensure reliable production	TECHNICAL EXPERTISE AND SUPPORT With our process know-how, on-site service and analysis, we ensure stable and reliable processes
SUSTAINABLE SOLUTIONS Meet environmental targets and reduce energy and footprint costs	RESOURCE-EFFICIENT PRODUCTION ACMOS products help you make your processes more resource-efficient



OUR APPLICATIONS



SHEAR BLADE LUBRICANTS

provide excellent cut-off with optimal lubricating and cooling effect at a dilution ratio up to 1 : 1500.



DELIVERY COATINGS

ensure smooth gob flow and so a perfect loading. They extend service life up to several weeks and can be repaired during ongoing production.



BLANK MOULD COATINGS AND LUBRICANTS

extend swabbing cycles, improve loading process and reduce defects. Our lubricants for blanks are adjusted to our Coatings and contribute to stable, efficient production.



FINAL MOULD COATINGS AND LUBRICANTS

are perfectly matched to each other, minimising contamination after swabbing without compromising performance.



CONVEYOR BELT LUBRICANTS

serve a protection layer between glass and metal e.g. on the transport from production into the annealing furnace and for the transfer plate for ensuring a surface without checks and cracks.

SHEAR BLADE LUBRICANTS



**Excellent glass cut-off.
Maximum shear blade lifetime.**

ACMOS Shear Blade Lubricants are available as native oils or fully synthetic formulations.

Both technologies deliver excellent lubrication and cooling performance at a dilution ratio **up to 1 : 1500**.

Special additives provide high protection against corrosion and microorganism - ensuring reliable performance and a long blade lifetime.

KEY BENEFITS

- Dilution ratio up to 1 : 1500
- Excellent lubrication and cooling
- Perfect glass cut-off
- Long shear blade lifetime
- Very low consumption

TWO TECHNOLOGIES - ONE GOAL: OPTIMAL PERFORMANCE

ACMOS 46-24
NATIVE OIL TECHNOLOGY

ACMOS 46-41-3
SYNTHETIC TECHNOLOGY

WE SUPPORT YOU EVERY STEP OF THE WAY DURING THE IMPLEMENTATION

PRODUCT SELECTION

A new shear blade lubricant involves many variables and therefore carries risks. That is why we personally support you at every step: From product selection to final implementation.

TESTING SUPPORT

We help you to find the right solution considering the water quality and other conditions in your process.

PERFORMANCE MONITORING

We analyse results and optimise for the best performance. Even after implementation we provide quality monitoring of your mixing water and working fluid as free service.

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DELIVERY COATINGS

**Reduced Friction.
Better Loading.**

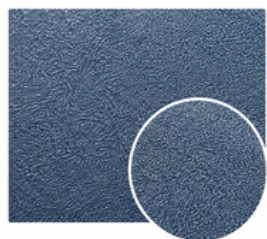
ACMOS Delivery Coatings are based on a two-component system to be mixed with hardener ACMOS 43-231 as component B. That technology is easy to apply on the production site and ensures a **lifetime extension** of the delivery **up to several weeks**.

By sealing the delivery surface the friction between the gob and the delivery can be decreased and the sliding properties of glass gobs significantly improved, so that the gob reaches the mould at a more constant speed.

TWO WAYS TO ACHIEVE THE BEST PERFORMANCE

ACMOS 43-4

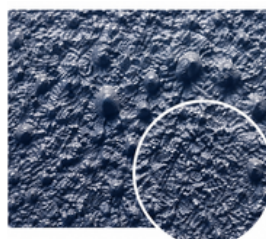
FINE STRUCTURE



- Very smooth surface
- Excellent sliding properties

ACMOS 43-3 ACMOS 43-7

COARSE STRUCTURE



- Reduced contact between coating and glass gob due to its roughness
- Often the preferred choice in practice

KEY BENEFITS

- Service life of deliveries up to several weeks
- For all types of channels and deflectors
- On-site application without special equipment or logistics
- Reduced friction between the gob and the delivery surface
- Better sliding of glass gob

Fine or coarse structure - **the right application** is what **makes the difference**.

Scan the QR code and learn how to achieve the best results in your process.



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REPAIR COATING ACMOS 43-5004

**Repair your deliveries on the fly.
Without production interruption.**

The unique repair technology **ACMOS 43-5004** allows worn delivery channels to be repaired directly during the production - quickly, easily and effectively.

Available for brush application and for spraying.



PRACTICE IN THE INDUSTRY

- Shut down the affected stations and the neighboring ones for safety reasons
- Removal of the used delivery
- Installation of the new coated delivery

**PRODUCTION LOSSES
LOSS OF OPERATOR TIME
AS A RESULT**

WITH ACMOS 43-5004

- Shake the coating until homogeneous
- Select a swab matching the delivery size
- Remove loose dirt with a cotton cloth
- Soak the tassel with ACMOS 43-5004 and squeeze until it no longer drips
- Pull the soaked tassel through the delivery from top to bottom



ON-THE-FLY REPAIR

Apply while the station is running. The coating forms a firm layer without pollution of the gob.



NO DISMANTLING REQUIRED

No need to remove the delivery from the machine, so there is no shut down of the stations.



APPLICATION ONCE A SHIFT SUFFICIENT

Quick and simple on-site application.



EXTENDED SERVICE TIME

Apply if needed once a day shift and an extension of lifetime of your delivery system is ensured.

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BLANK MOULD COATINGS

Extend Swabbing cycles.
Improve glass quality.

ACMOS Mould Coatings act as a **lubrication buffer** on the mould surface. They support **smooth machine start-up** after job changes, extend lubrication intervals and help **reduce defects** such as loading marks and cracks.

Depending on the coating, **lubrication intervals can be doubled** – giving operators more time to focus on a stable and efficient production process.

STANDARD APPLICATIONS	HIGH TEMPERATURES (> 500°C)
ACMOS 43-22 ACMOS 43-25 ACMOS 43-51 ACMOS 43-5001	ACMOS 43-32 ACMOS 43-36-1 ACMOS 43-5010

KEY BENEFITS

- Smooth machine start-up
- Easy loading without glass defects
- Reduced consumption of lubricant
- Extended running time of moulds
- Increased production efficiency
- Also available in a spray can for easy application

Watch the application tutorial. Learn how to achieve the best coating performance.



The best results can only be achieved **in combination with ACMOS Mould Lubricants**.

NEWEST TECHNOLOGY

ACMOS 43-9014



**Swabbing-free production for several hours.
No curing needed.**

ACMOS 43-9014 is a **unique technology** available on the market and is **revolutionising swabbing** practices within the container glass industry. This reduces the need for lubrication and **does not need to be cured** before use.



SWABBING CYCLE EXTENSION UP TO 2 TIMES

Not only for 1-2 hours after the job change, but during the entire production time



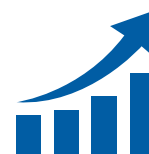
REDUCING NEGATIVE IMPACT OF SWABBING

Less rejects due to contamination after swabbing and reduced lubricant consumption by up to 50%



IMPROVED QUALITY

Optimal loading is ensured despite reduced lubrication, thereby minimising article defects



INCREASE EFFICIENCY

The fewer gobs are rejected, the higher the output at the same input

EXTENDED LUBRIFICATION INTERVALS

Standard Process

Swab

Production

Swab

Production

Swab

Production

**With
ACMOS 43-9014**

Swab

Production

Swab

KEY BENEFITS

- Significant reduction of rejected gobs
- Reduced consumption of lubricant
- Extended service time of moulds
- Higher safety through fewer manual interventions
- Increased production efficiency

Scan the QR code and discover more about our latest technology.



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BLANK MOULD AND NECK RING LUBRICANTS

**Economical and easy to use.
For dry application.**

ACMOS Lubricants for blank moulds are graphite-mineral oil based lubricants with **excellent flow** and **wetting properties** on hot blank moulds.

PRODUCTS	APPLICATION RECOMMENDATION
ACMOS 48-403	for smaller bottles, cosmetics and perfume bottles
ACMOS 48-405	for universal use
ACMOS 48-407	for high-volume, long-necked or broad-shouldered bottles
ACMOS 40-412	for neck rings only
ACMOS 48-418	for automatic spraying (swabbing robots)

KEY BENEFITS

- Optimised for a dry application
- Thin lubricant film is sufficient for optimal loading
- Quality improving by minimising cracks and checks
- Reducing contamination and minimising rejected gobs
- Improved process stability

The optimal results can only be achieved **in combination with ACMOS Mould Coatings**.

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FINAL MOULD COATING

ACMOS 43-34



**No impact on glass brilliance.
Proven in production.**

Many glass manufacturers still limit the use of mould coatings to blank moulds. The main reason is the **concern** that coating the final blow mould **may affect container quality**. However, extensive industrial trials have demonstrated that these concerns are largely unfounded.

With **ACMOS 43-34** we offer a Final Mould Coating **especially formulated for final moulds**, to reduce defects in critical areas and minimise the need for swabbing.

CONCERNS	PROVEN PERFORMANCE
• Coating may affect glass surface • Reduced glass brilliance • Surface contamination • Residues on the container • Negative effects on transparency and appearance	• No transfer affecting brilliance • No impact in transparency • No reduction in surface quality • Especially effective in critical areas as engravings, logos, critical geometry areas

KEY BENEFITS

- Formulated for final blow moulds
- No impact on brilliance
- Reduced cracks and other defects
- Better performance in critical areas
- Higher process stability
- Also available in a spray can for easy application

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FINAL MOULD LUBRICANT ACMOS 48-141

**Economical and easy to use.
For dry application.**

ACMOS 48-141 is especially developed for a **dry lubrication** of the final moulds. The drier the application, the **lower the transfer** to the final article and the lower the reject rate. The slogan "Less is more" applies perfectly.



DRY APPLICATION

Even a thin film is sufficient for optimal lubrication



MINIMISING ARTICLE DEFECTS

Improved surface quality, especially in critical areas such as engravings and letters



MINIMAL CONTAMINATION

Ensures a clean surface of the final glass container



INCREASE IN PROCESS STABILITY

Contributes significantly to improving efficiency at the hot-end

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SPECIAL COATINGS FOR CONVEYOR BELTS (HOT-END)



Reliable Protection for Glass Container Transport

We offer Special Coatings for conveyor belts, based on a dispersion of waxes and **graphite in water**, with a very **good adhesion to metal**. Providing protection layer between glass and metal e.g. on the transport from production into the annealing furnace and on the transfer plate and preventing cracks on the glass bottom.

ACMOS Special Coating for conveyor belts is available in two versions:

ACMOS 48-501	ACMOS 48-500
• Liquid and ready-to-use • Can be wiped or be sprayed with a standard spray gun • Application once per shift onto the surfaces sufficient	• Paste-like consistency • Perfect for the first application on new or cleaned belts



PROTECTS GLASS SURFACES

Reduces direct contact between glass and metal components



PREVENTS BOTTOM CRACKS

Minimise the risk of damage during transport



EXCELLENT METAL ADHESION

Forms a durable protective layer on conveyor belts and transfer plates



EASY APPLICATION

Can be applied by wiping or spraying, once per shift is sufficient



LET US IMPROVE YOUR GLASS PRODUCTION TOGETHER



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