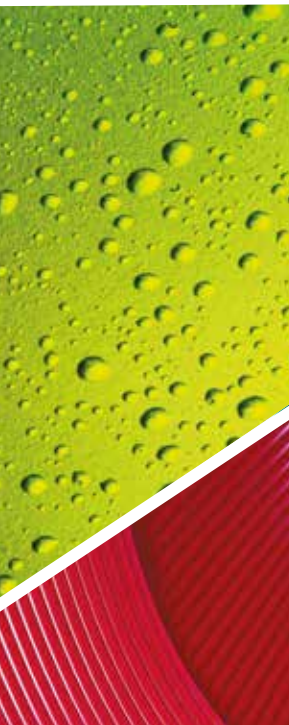


KERCOAT® / OPTICOAT®

GLASS COATING FOR
RETURNABLE BOTTLES/

Give a long life to your bottles



ARKEMA
INNOVATIVE CHEMISTRY



TAKE THE RIGHT DECISION FOR THE BEST PACKAGING STRATEGY AND BASE YOUR CHOICE ON BEST GLASS QUALITY.

Customers have many choices of beverages. Make sure your bottles look the best on the shelves thanks to our solutions for returnable bottles.

Bottles represent brand quality and give the first impression to consumers. To extend the benefit of nice looking bottles, Arkema's package-offer is the perfect solution for fillers. Thanks to technologies designed for the filling and packaging industry, we are able to support our customers implementing the equipment directly on the production lines.

After few washing cycles the initial protective coating is washed off and scuffing is generated cycle by cycle. Leading to the ugly appearance of scuffed bottles. Despite all efforts to smoothly convey the bottles over the lines, scuffing is caused systematically by bottle to bottle contact.

ARKEMA HAS FOUND A WAY TO MINIMIZE THIS IMPACT

Kercoat®

the protecting agent allowing bottles
to look nice **up to 25 cycles** by
decreasing scuffing build-up



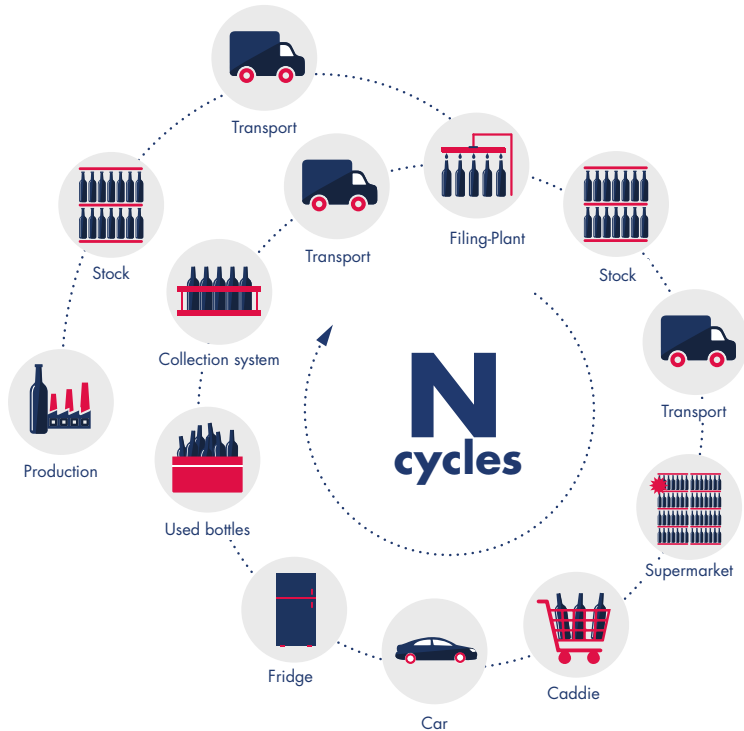
Opticoat®

to complete your strategy being the
masking coating to keep bottles nice
up to 50 cycles

Moreover, our 30 years of experience in **hot and cold end coating** and our close support to the glass industry ensures you the best glass quality to start the returnable Odyssey with a scuffing dedicated life.



FOR 30 YEARS WE HAVE BEEN TRACKING THE "ODYSSEY" OF A RETURNABLE BOTTLE



AT THE BEGINNING OF EACH CYCLE

- ❖ Caustic washing
- ❖ Original coating (HCEC) gone
- ❖ Intense bottle to bottle contact
- ❖ Mechanical damage starts
- ❖ Reach directly glass surface

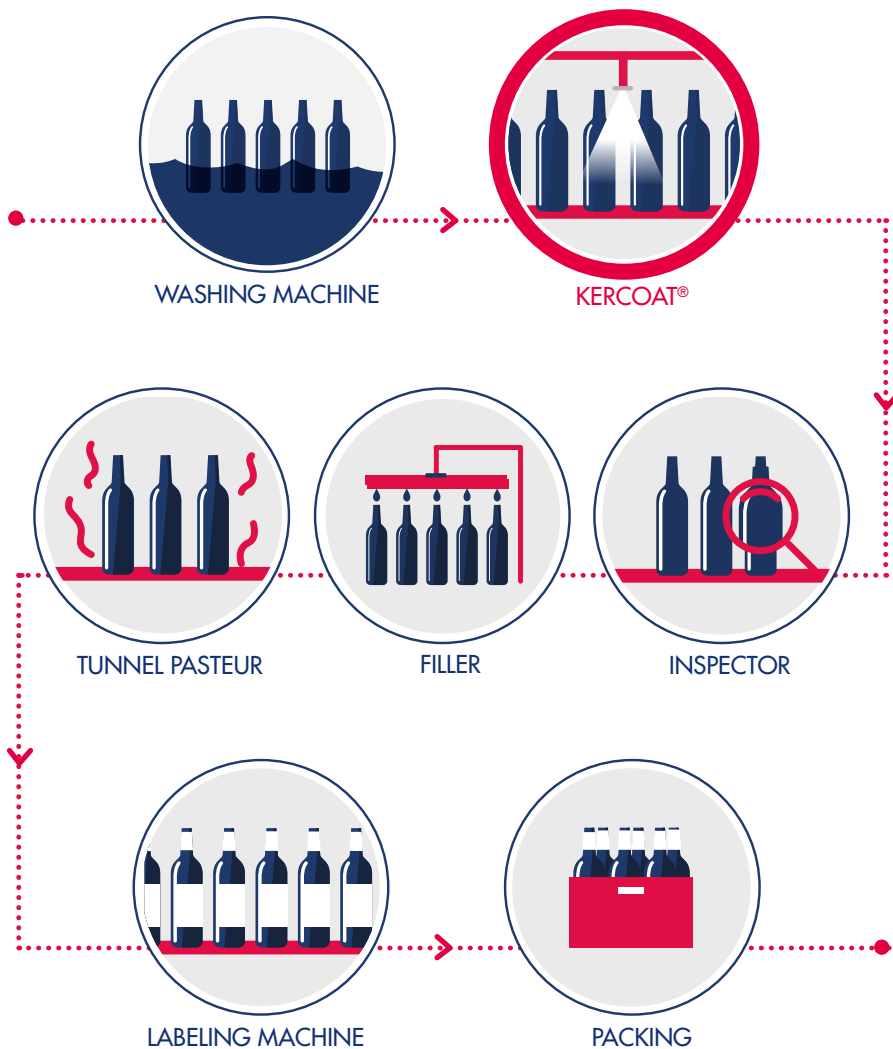
❖ Real need of bottle protection

WHAT IS KERCOAT®?

THE ANTI-SCUFFING FOR YOUR BOTTLES

The Kercoat® post coating system has been already installed world-wide on hundreds of lines.

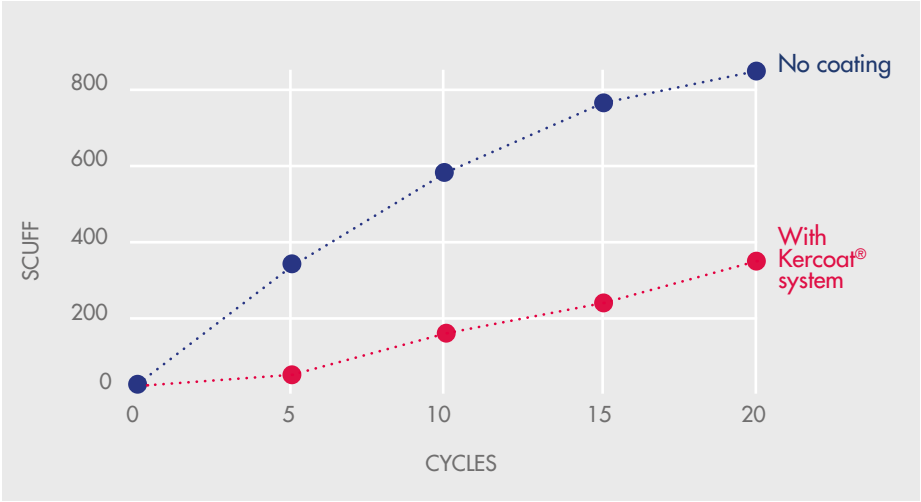
Kercoat® is a protective coating allowing the decrease of scuffing build up. The Kercoat® system is mounted at the bottle washer's dis-charge. At this step, Kercoat® product is sprayed on the bottles and will protect them during their whole life cycle. When bottles are back in the filling plant, Kercoat® is washed-off in the bottle washer without side effects and is again applied when leaving the bottle washer to restart its protective mission.



The succeeding graphic shows the result of a line trial with an installed Kercoat® system. Independently performed by one of Arkema's customers, showing the outstanding effect of Kercoat® coating.

Bottles with Kercoat® coating have the same scuffing after ~ 20 cycles as the uncoated bottles after approximately 5 cycles.

PROVEN EFFECT OF KERCOAT®



Acceptance level set to 4 mm scuffing-band thickness.
Improvement factor found close to 4.

AN INTEGRATED EQUIPMENT BASED ON 3 DEVICES



HEADER



BASE CABINET



WATER TREATMENT
STATION

BENEFITS

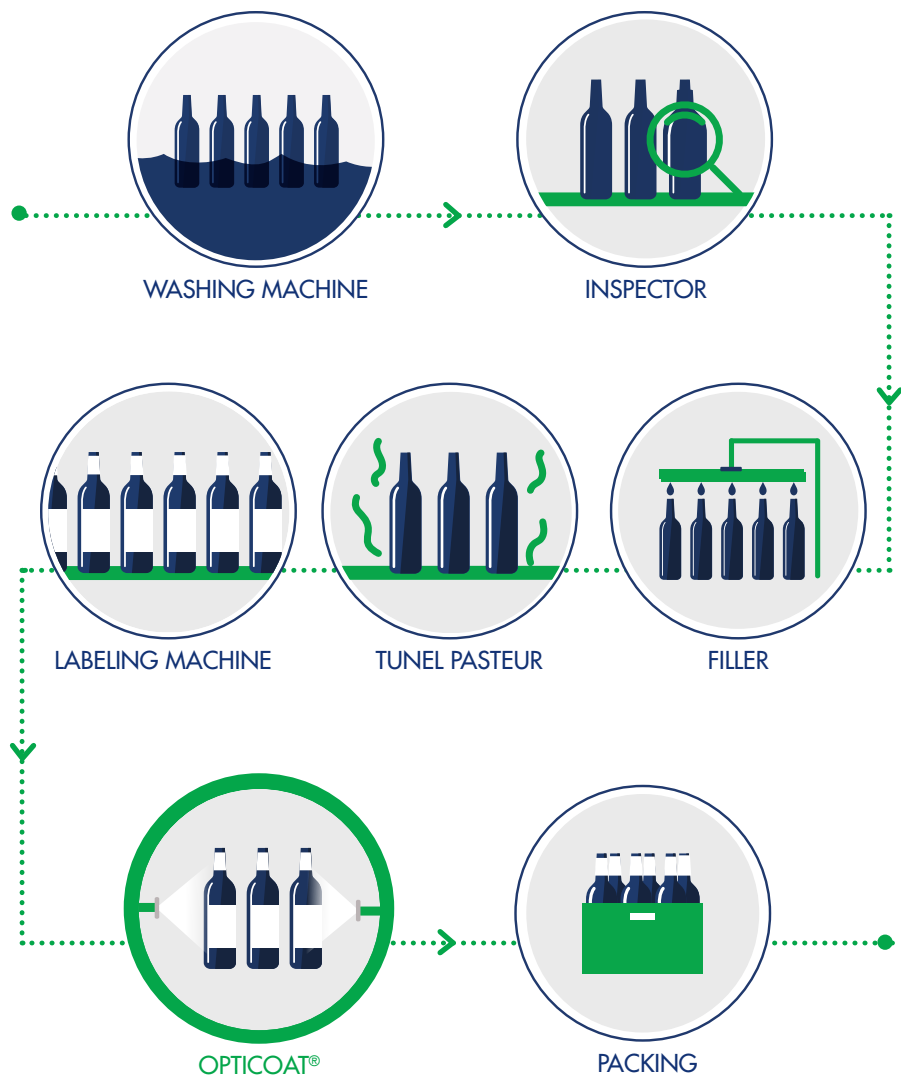
- ❖ Reduces friction and damage during bottle to bottle contact.
- ❖ Reduces noise and scuffing due to better bottle flow.
- ❖ Doubles the number of bottles' life cycles and keeps bottles in good shape.
- ❖ Keeps burst pressure strength at a higher level.
- ❖ Keeps the bottles longer looking young.

WHAT IS OPTICOAT®?

THE EMBELLISHING COATING FOR YOUR BOTTLES

Opticoat® masks wear to make bottles look like new even after 30 to 50 cycles in return.

This masking effect is obtained by an easy to use and accurately controlled masking system including spray cabinet and base cabinet. Application is made through exclusive electrical nozzles allowing a precised, safe and optimized coating to ensure the best possible masking.



**SIGNIFICANTLY IMPROVES THE APPEAL OF
ALREADY USED BOTTLES**



COMPARISON AFTER 20 CYCLES

AN INTEGRATED EQUIPMENT BASED ON 2 DEVICES



BASE CABINET



SPRAY CABINET

OPTICOAT® PRODUCT RANGE:

- ❖ **Opticoat® 140:** designed for dry bottle and non-or slight condensing conditions likewise, after tunnel pasteurization.
- ❖ **Opticoat® 150:** designed for application at cold and wet conditions. Flash pasteurization and soft drinks.

BENEFITS

- ❖ Improvement of appearance
- ❖ Extend the bottles service life
- ❖ Highly efficient masking

ONLINE AND OFF-LINE TECHNICAL SERVICE

eWon: MONITORING SYSTEM ON CUSTOMER'S SITE

Arkema set up a monitoring system to support our customers. Thanks to the developed system, the data is sent to Arkema's specialists in order to be able to promptly respond to all kind of system irregularities and help the customer with direct support.

- ❖ "Real time mode": system check possible in real time.
- ❖ Application system remotely monitored.
- ❖ Does not affect customer's IT system.
- ❖ Optimization of Kercoat®/Opticoat® spraying system: anticipated issues thanks to the remote device trend analysis.
- ❖ Communication by mail or phone to customer to solve issues.



Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on <http://www.arkema.com/en/products/product-safety/disclaimer/index.html>

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