



KLEENMOLD

ADVANCING GLASS LUBRICATION TECHNOLOGY



TOTAL

TOTAL Kleenmold Lubricants

SHEAR SPRAY LUBRICANTS

TOTAL's shear spray lubricants are designed to provide extended shear blade life, excellent shear cut, corrosion protection, reduced shear marks and cost-effective performance. These features translate into easy maintenance of the shear spray system. Different operating and water quality parameters primarily dictate what type of product will offer optimal lubrication. TOTAL has developed several types of shear oils – each with the same objective to provide optimal lubrication while reducing maintenance.

PRODUCT	DESCRIPTION	DILUTION RATIO	BASE OIL	WATER QUALITY REQUIREMENT
GLASSCUT 300	<ul style="list-style-type: none">• Soluble oil for recirculating/recycling dosing systems	300 to 1	Petroleum	Treated water recommended
KLEENKUT 2050	<ul style="list-style-type: none">• Cost effective product for use with precise dosing systems (graphoidal, etc)	1250 to 1	Vegetable	Treated water required
KLEENKUT HD	<ul style="list-style-type: none">• Excellent emulsion and hard water stability.• Works with any quality water and dosing system	750 to 1	Synthetic	Treated water recommended but not required

DELIVERY COATINGS

These products provide a low coefficient of friction coating to allow the gob to be easily transported to the blank. They also insulate the gob from excessive heat loss. Kleenmold coatings are strongly bonded to a surface effectively eliminating the transfer of particulate matter to the glass.

In order to assure consistent quality and high efficiency, a gob must reach the mold equipment at a constant speed, without checks and inclusions. Kleenmold coatings and lubricants for delivery equipment can minimize defects that can reduce overall cost and improve quality.

PRODUCT	DESCRIPTION	APPLICATION
KLEENMOLD BASE 10	<ul style="list-style-type: none">• Graphite dispersed in epoxy resin	For trough and deflectors everyday applications
KLEENMOLD BASE 26	<ul style="list-style-type: none">• Graphite dispersed in high temperature resistant epoxy resin	For troughs and deflectors requiring longer life on machine

DELIVERY LUBRICANTS (SCOOP OILS)

Kleenmold scoop oils reduce COF so gob slides easily and on-time into the blank. Our products do not transfer to the gob and are designed to keep the delivery equipment clean. Like our coatings, lubricants for delivery equipment can minimize defects that can reduce overall cost and improve quality.

PRODUCT	DESCRIPTION	BASE OIL	APPLICATION
GLASSFLOW XD 004	<ul style="list-style-type: none">• Water-white oil providing cost-effective performance	Petroleum	Spray or drip into scoop every 50 cuts
GLASSFLOW SUPREME	<ul style="list-style-type: none">• Clear oil providing exceptionally clean performance	Synthetic	Spray or drip into scoop every 300 to 400 cuts
GLASSFLOW 25	<ul style="list-style-type: none">• Non-flammable, water-based product providing exceptionally clean performance	Water/glycol	Spray or drip into scoop as required

For more information, additional products, and MSDS sheets, go to www.total-kleenmold.com

PRECOATS

Precoats are applied in many glass plants to blank and mold equipment to facilitate the start-up after a job change. Kleenmold precoats deposit a tightly-bonded lubricating film of graphite on mold equipment surfaces which provide excellent gob loading and parison release. This helps to minimize lost production by allowing operators to focus on fine-tuning various aspects of production and to check bottle quality, rather than on swabbing.

PRODUCT	DESCRIPTION	PURPOSE	APPLICATION
KLEENMOLD PRECOAT 409	<ul style="list-style-type: none"> Non-flammable, water-based product in an aerosol can 	Start-up coating	Spray onto room temp equipment, heat in oven to 200 C°, put into service
GLASSLUBE DS	<ul style="list-style-type: none"> Non-flammable, water and phosphoric acid based product 	Extended time without swabbing	Preheat equipment to 80 C°, spray on, heat in oven to 200 C°, put into service

BLANK MOLD LUBRICANTS

TOTAL Lubricants USA, Inc. offers a very wide variety of different swabbing compounds. Kleenmold swabbing compounds contain graphite, wetting agents and additives to **penetrate into tight surfaces**, providing **uniform lubrication** and release that **eliminates checks and build-up**. The following products represent some of our product line. Additional information about special products can be obtained from your local distributor.

PRODUCT	APPLICATION	SOLIDS %	SULFUR %
KLEENMOLD 170	<ul style="list-style-type: none"> General-purpose product recommended for all types of ware and applications 	5.4	4.5
KLEENMOLD 197	<ul style="list-style-type: none"> General purpose product for flint ware, cosmetic, perfume and pharmaceutical bottles 	1.8	4.5
KLEENMOLD 202	<ul style="list-style-type: none"> Recommended for high-temperature, high-speed, and NNPB applications (beer bottles) 	4.6	5
KLEENMOLD 297	<ul style="list-style-type: none"> Recommended for borosilicate glass & high temperature, high quality perfume and cosmetic bottles 	2.2	< 1.0

ALL PRODUCTS SHOULD BE APPLIED WITH A DRY SWAB TO ACHIEVE BEST PERFORMANCE.

RING DOPES

Kleenmold Ring Dopes are designed to penetrate into ring surfaces and deposit a thin, tightly-bonded uniform graphite film. Our Ring Dopes contain special graphite, wetting agents and additives designed to provide lubrication and release, eliminating checks and reducing build-up.

PRODUCT	APPLICATION	SOLIDS %	SULFUR %
RING DOPE E	<ul style="list-style-type: none"> General purpose product for all applications 	0.3	4.5
RING DOPE 46	<ul style="list-style-type: none"> NNPB; provide extended life of equipment on the machine Minimize build-up, very clean 	1	4.5

MOLD COMPOUNDS

TOTAL Lubricants offers a wide variety of different mold touch-up compounds. These compounds contain special graphite, wetting agents and additives to **penetrate into tight surfaces**, providing **uniform lubrication** and release that **eliminates checks and build-up** to maximize production efficiency. The following touch-up compounds contain different additives and physical properties.

PRODUCT	APPLICATION	SOLIDS %	SULFUR %
MOLAC TM	<ul style="list-style-type: none"> Provides very clean performance lubricating blow molds and bottom plates. It will help to reduce checks and extends the life of mold equipment 	2	< 1
DAMCHEX SX	<ul style="list-style-type: none"> Graphite-free, clear yellow liquid, low-odor product for lubricating blow molds 	None	>10

SYNTHETIC I.S. MACHINE OILS

I.S. Machine Oils are specially formulated to meet all the lubricating requirements of an I.S. machine. They **provide lubrication, protect against corrosion, minimize build-up** and **provide easy, trouble-free start-ups** under severe conditions. The extreme temperature conditions found in glass forming operations can cause machine lubricants to breakdown and form deposits, which can interfere with the proper synchronization of an I.S. machine mechanism. TOTAL has specially engineered many synthetic I.S. machine oils for specific plants in different locations. These oils were created with a vast array of different properties.

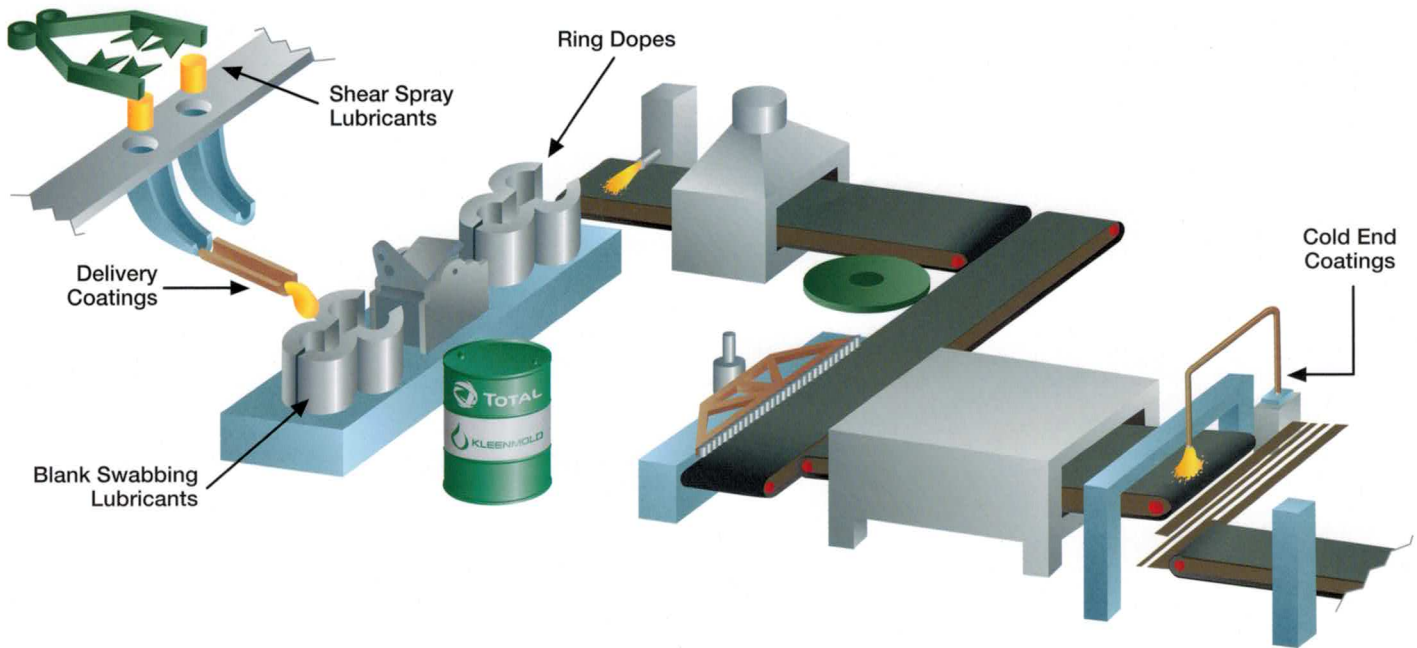
PRODUCT	APPLICATION	FLASH POINT C°	BASE OIL
KLEENOIL 100	<ul style="list-style-type: none"> ISO 100 synthetic oil recommended for I.S. machine servo systems 	271	Synthetic
KLEENOIL 440	<ul style="list-style-type: none"> ISO 220 synthetic oil for all I.S. machine lube systems 	271	Synthetic
BLACK OUT CONVEYOR LUBE	<ul style="list-style-type: none"> Water-based graphited lubricant that is sprayed or brushed onto the conveyor belt. It leaves behind a graphite film that helps reduce damage to bottles 	None	Water

COLD END COATINGS

Cold-end coatings protect and lubricate bottles so they can be moved smoothly, without damage, with high-speed handling equipment from a massed group of bottles on the Lehr into single lines for inspection on through packaging. When the bottles reach the customer's plant, they will be unpacked, cleaned, filled, labeled, and repacked. There will, of course, be glass-to-glass contact during all these processes and efforts must be taken to keep damage at a minimum.

PRODUCT	APPLICATION	APPLICATION TEMPERATURE C°	DILUTION RATIO	SOLIDS %
GLASSKOTE SC 100 E	<ul style="list-style-type: none"> Spray onto bottles as they exit the Lehr 	80 < T < 120	100:1 (Treated water)	20





4 Good Reasons to Choose Kleenmold

1. A MAJOR COMPANY

TOTAL Lubricants is a subsidiary of TOTAL, the world's fifth largest integrated oil and gas company, employing nearly 100,000 people on five continents. TOTAL Lubricants produces and sells its products under the TOTAL brand in more than 150 countries.

2. SAFE AND ECO-FRIENDLY PRODUCTS

Elements designed to reduce the risk of toxicity are incorporated into the design of every product. TOTAL Lubricants renews its ISO 9001 certification every three years as a guarantee of its long-term commitment to manufacturing and developing the best and most consistent products available.

3. INNOVATION

Thanks to a major investment in Research & Development and close cooperation with end-users, TOTAL Lubricants creates high-technology products with substantial added value for optimum performance and glass production efficiency.

4. PARTNERSHIP

The wide range of TOTAL products means that you can find the lubricants and coatings to meet your every need. By choosing Kleenmold from TOTAL, you can be fully confident that our team will work with you to enhance your productivity and minimize your production costs.



The right choice in lubricants **TOTAL**