

LokRelease™ Mold Release



LORD

LORD® LOKRELEASE™ MOLD RELEASE

LORD® LokRelease™ Mold Release is a family of fast curing release agents designed for use with molded elastomers. LORD LokRelease solutions provide a semi-permanent anti-stick surface coating for fast, easy part removal from molds.

LORD LokRelease solutions are formulated to increase time between mold-picking and reduce mold fouling in the rubber-to-substrate molding processes. Our mold releases have been used in LORD rubber-to-metal part and manufacturing facilities for years.

APPLICATIONS

- Industrial rubber-to-substrate molding
- Automotive rubber-to-substrate molding
- Other molding processes include injection, compression and transfer molding

SUBSTRATES

- EPDM
- Natural Rubber
- Nitrile
- Neoprene
- Epoxy/Plastic Laminates
- Silicone
- Fluoropolymer
- Plastic

ADVANTAGES

- **Versatile** – Available in three convenient product forms of aerosol, aqueous and solvent based solutions.
- **Process Enhancer** – Provides quick, easy part release; produces low build-up, allowing more production time between mold cleanings
- **Manufacturing Efficiencies** – Single application allows for multiple molding cycles.
- **Improved Appearance** – Reduces defects caused by sticking; non-transferable, eliminating post-finishing problems.
- **Environmentally Recommended** – Contains no Class I or Class II ozone depleting substances; contains no 1,1,1 trichloroethane or methylene chloride. Water-based coating reduces rust and corrosion in steel molds

PRODUCT INFORMATION

SKU	Product	Description
3024952	LokRelease 100EZ	Case of 12/10oz. Aerosol Can
3024937	LokRelease 100	Solvent-Based/1 gal.
3024938	LokRelease 100	Solvent-Based/5 gal.
3024940	LokRelease 200	Water-Based/1 gal.
3024941	LokRelease 200	Water-Based/5 gal.
3025222	LokRelease 300	Silicone-Free/1 gal.
3025223	LokRelease 300	Silicone-Free/5 gal.



TECHNICAL DATA

LOKRELEASE™ 100EZ MOLD RELEASE

DESCRIPTION

LORD® LokRelease™ 100EZ mold release is a fast curing, non-transferable release agent designed for use with molded elastomers, including EPDM, natural rubber, nitrile and neoprene. It provides a semi-permanent, anti-stick surface coating for fast, easy part removal from molds.

FEATURES AND BENEFITS

Process Enhancer – provides quick, easy part release from molds; single application allows multiple molding cycles; improves molding efficiency in many processes including injection, compression and transfer molding.

Improved Appearance – reduces defects caused by sticking; non-transferable to elastomer compound; does not interfere with compound chemistry.

Environmentally Recommended – contains no Class I or Class II ozone depleting substances; contains no chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC) propellants; contains no 1,1,1 trichloroethane or methylene chloride.

APPLICATION

Surface Preparation – Remove mold release residue and other contaminants from surface of the mold prior to application.

Applying – Spray two or three light coatings of mold release on entire mold surface. Mold release can be applied to either hot or cold molds.

Drying/Curing – LORD LokRelease 100EZ mold release will quickly bond to heated mold surfaces [$\geq 150^{\circ}\text{F}$ (66°C)] within 5 minutes. Mold release will bond at room temperature if allowed to cure on mold surfaces for 1-2 hours before molding process.

If spot sticking occurs after molding, mold release coating can be “touched-up” by spraying LORD LokRelease 100EZ mold release directly on the sticking area and allowing time to cure.

LOKRELEASE™ 100 MOLD RELEASE

DESCRIPTION

LORD® LokRelease™ 100 mold release is a fast curing release agent designed for use with molded elastomers, including EPDM, natural rubber, nitrile and neoprene. It provides a semi-permanent, anti-stick surface coating for fast, easy part removal from molds.

FEATURES AND BENEFITS

Process Enhancer – provides quick, easy part release from molds; single application allows multiple molding cycles; improves molding efficiency in many processes including injection, compression and transfer molding.

Improved Appearance – reduces defects caused by sticking; non-transferable to elastomer compound; does not interfere with compound chemistry.

Environmentally Recommended – contains no Class I or Class II ozone depleting substances; contains no 1,1,1 trichloroethane or methylene chloride.

APPLICATION

Surface Preparation – Remove mold release residue and other contaminants from surface of the mold prior to application.

Drying/Curing – LORD LokRelease 100 mold release will quickly bond to heated mold surfaces [$\geq 150^{\circ}\text{F}$ (66°C)] within 5 minutes. Mold release will bond at room temperature if allowed to cure on mold surfaces for 1-2 hours before molding process.

If spot sticking occurs after molding, mold release coating can be “touched-up” by spraying LORD LokRelease 100 mold release directly on the sticking area and allowing time to cure.

Cleanup – If necessary, mold release coating can be removed from mold surface by gentle-abrasive (plastic) bead blasting.

	Pure Elastomer	Elastomer-to-Metal
Injection	●	
Compression	●	●
Transfer	●	



TECHNICAL DATA

LOKRELEASE™ 200/210 AQUEOUS MOLD RELEASES

DESCRIPTION

LORD® LokRelease™ 200/210 aqueous mold release is designed for use with molded elastomers, including EPDM, natural rubber, nitrile and neoprene. This water-based mold release provides a non-transferable and non-interfering anti-stick coating for fast, easy part removal from molds.

FEATURES AND BENEFITS

Process Enhancer – provides quick, easy part release; produces low build-up, allowing more production time between mold cleanings; improves molding efficiency in many processes including injection, compression and transfer molding.

Improved Appearance – reduces defects caused by sticking; non-transferable, eliminating post-finishing problems.

Environmentally Recommended – water-based coating is engineered to prevent rust and corrosion in steel molds.

APPLICATION

Surface Preparation – Remove mold release residue and other contaminants from surface of the mold prior to application.

Applying – LORD LokRelease 200 aqueous mold release must be applied to mold with surface temperature above 212°F (100°C). Apply mold release using a fine mist spray. Apply three light coats on hot mold surface, allowing 5 minutes between each coating.

Drying/Curing – Cure mold release coatings for 5 minutes on molds above 212°F (100°C).

If spot sticking occurs after molding, mold release coating can be “touched-up” by spraying LORD LokRelease 200 aqueous mold release directly on the sticking area and allowing time to cure

LOKRELEASE™ 300 SILICONE-FREE MOLD RELEASE

DESCRIPTION

LORD® LokRelease™ 300 mold release is a silicone-free release agent designed for use with molded rubber, fluoropolymer, plastic, and epoxy and plastic laminates. This water-based mold release has a very low coefficient of friction and provides a non-transferable and non-interfering anti-stick coating for fast, easy part removal from molds. LORD LokRelease 300 mold release is ideal for molding applications where a consistent release is desired, such as rotational mold internals.

FEATURES AND BENEFITS

Process Enhancer – provides quick, easy part release; produces low build-up, allowing more production time between mold cleanings; improves mold efficiency in many processes including injection, compression and transfer molding of most rubber compounds including silicone.

Improved Appearance – reduces defects caused by sticking; non-transferable, eliminating post-finishing problems.

Environmentally Recommended – water-based coating is engineered to prevent rust and corrosion in steel molds.

APPLICATION

Surface Preparation – Thoroughly clean, rinse and dry molds prior to application.

Mixing – Thoroughly stir mold release before use, and agitate sufficiently during use to keep dispersed solids uniformly suspended. Use a low rpm agitator on drums to prevent phase separation in the storage container.

Applying – LORD LokRelease 300 mold release must be applied to mold with surface temperature above 270°F (132°C). Apply mold release using low-pressure spray equipment that provides a fine mist.

	Pure Elastomer	Elastomer-to-Metal
Injection	●	●
Compression	●	●
Transfer	●	●

LOKRELEASE™ 800 ADHESIVE STRIPPING SOLUTION

DESCRIPTION

LORD® LokRelease™ 800 solution is a chemical stripper designed for removal of Flocklok®, Chemlok® and other adhesive products used in storage vessels, baths, pumps and transfer lines. This stripping solution allows accumulated material to be removed without being dissolved. LokRelease 800 adhesive stripping solution is specially formulated to create swell in the dried-on adhesive, causing material to fall off in large chunks which can then be filtered out of the stripping solution.

FEATURES AND BENEFITS

Environmentally Recommended – provides a less aggressive solvent blend than typical cleaners; eliminates need for EPA strippers with special handling requirements.

Economical – provides more effective removal process than standard solvent cleaning; solution can be recycled, reducing waste-disposal costs.

Process Enhancer – eliminates need for most mechanical removal processes; allows for unattended cleaning of processing equipment, reducing amount of time spent cleaning vessels.

	LokRelease 800
Carrier Solvent	MEK
Flash Point (°F)	22
Specific Gravity	0.88
Chemlok Extractables	Carbon Black
Odor	Citrus Scent

APPLICATION

Mixing – LokRelease 800 stripping solution is used full strength; do not dilute. Mix solution while in use.

Applying – Apply solution directly to surfaces needing stripped. During process, surfaces must remain wetted with the stripping solution.

While in use, filter out large chunks of stripped material from the solution.

Thicker accumulations of adhesive coatings may require more time for removal. Mechanical agitation will improve the rate of stripping. When practical, heating of the stripping solution with reflux can be beneficial.

Cleanup – After stripping, surfaces may be rinsed with a clean solvent of choice.



BEFORE



AFTER



LOKRELEASE MOLD RELEASE TROUBLESHOOTING GUIDE

APPLICATION

PROBLEM	CORRECTIVE ACTION
When applying the mold release, the carrier material does not evaporate.	<ol style="list-style-type: none"> 1. Check application temperature. If it is below the minimal bake temperature* of the mold release, increase the heat of the mold. *Consult TDS of mold release for this information 2. Re-evaluate the volume of spray being applied and adjust as necessary. Ensure that volume applied is low enough to avoid overspray.
After the initial application, certain areas of the mold begin to stick.	<ol style="list-style-type: none"> 1. This is normal with complex molds. Retouch areas or cavities where problems occur and continue molding.
When applying a water-based mold release, drops of the material "jump" on the surface of the mold and leave a white residue.	<ol style="list-style-type: none"> 1. Wipe excess mold release with a dry rag. 2. Optimize the atomization of the mold release by adjusting the controls of the spray gun. 3. Ensure the spray gun has a small nozzle of 0.6-0.8mm and atomization creates a fine mist; material should not drip when sprayed vertically on a porous surface such as cardboard.
Parts begin to stick in the mold. Certain cavities stick more often than others.	<ol style="list-style-type: none"> 1. Establish a frequency of a partial application to troublesome sections. 2. Establish a frequency of full application throughout the mold.
When applying the mold release, a large cloud of material is observed.	<ol style="list-style-type: none"> 1. Determine the consumption of mold release per application. Average consumption of mold release on a 16 cavity mold should be around 20 to 30 grams per application. 2. Reduce spray pressure if needed. 3. Check to see if spray gun has any defects. If a problem is found, fix spray gun or replace entirely.
Parts in the posterior cavities become jammed.	<ol style="list-style-type: none"> 1. Use an HVLP (high volume, low pressure) spray gun with an extension nozzle at 90° to avoid shadowing effect.

PROCESS

PROBLEM	CORRECTIVE ACTION
Parts cannot be release from the mold or it takes significant force to release parts.	<ol style="list-style-type: none"> 1. Clean the mold using grit blasting, dry ice blasting, etc. 2. Check the design of the part, mold, and runners. 3. If problem is not solved, a different mold release may be required for this mold. Consult with LORD technical service at customer_support@lord.com or call +1 877 ASK LORD (275 5673).
Rubber parts have cracks or flow lines.	<ol style="list-style-type: none"> 1. Reduce the amount of mold release sprayed per application. 2. If you are using a silicone based mold release, you may need to consider switching to a PTFE option for this part.

CLEANING

PROBLEM	CORRECTIVE ACTION
Pieces continue to stick to the mold despite correct application of mold release and proper application frequency.	<ol style="list-style-type: none"> 1. Clean the mold entirely and set periodic cleaning frequency on each mold.
Pieces become jammed and have defect marks coming from certain cavities.	<ol style="list-style-type: none"> 1. Clean and polish the mold. Avoid the use of hard abrasive fibers or blasting with hard grit media as this might damage the mold.

SELECTOR GUIDE

		EPDM	Nitrile	Natural Rubber	Neoprene	Silicone	Miliable Urethane	Fluoro-polymer	Plastic	Epoxy and Plastic Laminates	Other
Pure Rubber Parts	Compression	100EZ 100 200 210 300	100EZ 100 200 210 300	100EZ 100 200 210 300	100EZ 100 200 210 300						100EZ 100 200 210 300
	Injection	100EZ 100 200 210 300	100EZ 100 200 210 300	100EZ 100 200 210 300	100EZ 100 200 210 300						100EZ 100 200 210 300
	Transfer	100EZ 100 200 210 300	100EZ 100 200 210 300	100EZ 100 200 210 300	100EZ 100 200 210 300						100EZ 100 200 210 300
Rubber-to-Metal Parts	Compression	100EZ 100 200 210 300	100EZ 100 200 210 300	100EZ 100 200 210 300	100EZ 100 200 210 300						100EZ 100 200 210 300
	Injection		200 210 300	200 210 300	200 210 300						100EZ 100 200 210 300
	Transfer		200 210 300	200 210 300	200 210 300						100EZ 100 200 210 300

100 SERIES	200 SERIES	300 SERIES
<p>Solvent Based</p> <p>Non-transferable</p> <p>Available in aerosol form</p> <p>Environmentally Recommended</p>	<p>Water Based</p> <p>Non-transferable</p> <p>Environmentally Recommended</p>	<p>Silicone Free</p> <p>Water Based</p> <p>Non-transferable</p> <p>Environmentally Recommended</p>

LORD GLOBAL PRESENCE



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LORD provides valuable expertise in adhesives and coatings, vibration and motion control, and magnetically responsive technologies. Our people work in collaboration with our customers to help them increase the value of their products. Innovative and responsive in an ever-changing marketplace, we are focused on providing solutions for our customers worldwide ... Ask Us How.

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