

Semi-Permanent FKM Fluoroelastomer Mold Release Agent High Temperature 230 Celsius Stable

Our Product Introduction

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Basic Information

- Place of Origin: Guangdong, China
- Brand Name: Lubekote
- Certification: ISO 9001:2015, RoHS, REACH
- Model Number: LK-9540-FKM
- Minimum Order Quantity: 10 Liters
- Price: USD 22-35 / Liter
- Packaging Details: 10L and 20L HDPE drum, 200L steel drum, export-grade palletized packaging
- Delivery Time: 5-7 working days for stock, 15-20 days for production
- Payment Terms: T/T, L/C, PayPal, Western Union
- Supply Ability: 20000 Liters per Month



Product Specification

- Product Type: Semi-Permanent Mold Release Agent
- Target Rubber: FKM (Viton Fluoroelastomer), FFKM
- Solvent Base: Fluorinated Solvent Blend
- Maximum Temperature: 230°C
- Release Cycles Per Application: 6-8 Cycles
- Appearance: Clear Liquid
- Specific Gravity: 0.85-0.90 G/cm³
- Flash Point: >60°C
- Shelf Life: 12 Months
- Film Thickness: <0.5 Microns
- Highlight: **FKM fluoroelastomer mold release agent, high temperature mold release agent, semi-permanent rubber mold release**

Semi-Permanent Mold Release Agent for FKM Fluoroelastomer Processing

Product Introduction

Lubekote LK-9540-FKM is a specialized high-temperature semi-permanent mold release agent engineered for FKM (fluoroelastomer/Viton) molding applications. FKM elastomers are the premier choice for extreme chemical and thermal environments, widely used in aerospace seals, automotive fuel system components, oil and gas downhole equipment, and chemical processing gaskets. However, FKM's exceptional performance properties come with significant processing challenges—high vulcanization temperatures (typically 170-230°C), aggressive adhesion to metal molds, and complex curing chemistry. LK-9540-FKM utilizes an advanced fluorinated polymer system dissolved in a specialty solvent blend that provides outstanding thermal stability up to 230°C. The release film maintains its integrity through repeated high-temperature cycles without thermal degradation, carbonization, or loss of release performance—critical for the demanding FKM molding environment.

Key Features & Benefits

230°C Continuous Thermal Stability: The fluorinated polymer release film withstands sustained mold temperatures up to 230°C without degradation, carbonization, or release failure—a critical requirement for FKM post-curing cycles that conventional release agents cannot meet.

Chemical Inertness: The release film is chemically resistant to the aggressive curing agents, plasticizers, and additives used in FKM compounding, ensuring consistent release performance regardless of compound formulation.

Ultra-Thin Film Preservation of Surface Finish: Film thickness below 0.5 microns preserves critical mold surface finishes and dimensional tolerances essential for precision FKM seals used in aerospace and semiconductor applications.

6-8 Release Cycles per Application: Semi-permanent durability reduces application frequency by 80% compared to conventional release agents, minimizing production interruptions and labor costs.

Bisphenol and Peroxide Cure Compatibility: Formulated to be non-reactive with both bisphenol-AF and peroxide curing systems commonly used in FKM processing, avoiding cure inhibition or surface defects.

No Mold Fouling at High Temperature: Unlike silicone-based release agents that can form insulating deposits at elevated temperatures, LK-9540-FKM's self-limiting film prevents progressive mold fouling.

Why Choose Us

Our 12-year specialization in rubber processing auxiliaries, supported by German and US R&D partnerships, has positioned us as a trusted supplier to demanding FKM processing industries. With 10 patents in release agent technology, we understand the critical requirements of high-performance elastomer processing. Our ISO 9001:2015 certified facility employs advanced analytical capabilities including TGA (Thermogravimetric Analysis) for thermal stability validation, DSC (Differential Scanning Calorimetry) for compatibility testing, and SEM (Scanning Electron Microscopy) for film morphology analysis. We have successfully served aerospace seal manufacturers, semiconductor equipment suppliers, and automotive fuel system producers across 30+ countries. Our application engineers provide on-site support for mold preparation, application technique optimization, and troubleshooting. Custom formulations are available for specific FKM grades including Viton A, B, F, GFLT, and Extreme.

Technical Parameters

Parameter	Specification
Product Type	Semi-Permanent Mold Release Agent
Target Rubber	FKM (Fluoroelastomer), FFKM
Maximum Temperature	230°C Continuous
Release Cycles per Application	6-8 Cycles
Appearance	Clear Liquid
Specific Gravity	0.85-0.90 g/cm ³
Film Thickness	<0.5 microns (Single Application)
Flash Point	>60°C
Shelf Life	12 Months (Unopened)

Application Instructions

Mold Preparation: Clean mold surface with a high-temperature mold cleaner compatible with fluorinated residues. Ensure complete removal of prior release agents, carbon deposits, and FKM compound residues. Preheat mold to 150-180°C.

Application: Apply LK-9540-FKM using an HVLP spray gun at 1.5-2.0 bar. Apply 2-3 thin, uniform coats with 45-60 second intervals for solvent flash-off. Avoid over-application which can cause film thickness inconsistency.

Curing: Allow 3-5 minutes at mold temperature for complete thermal cross-linking of the release film before introducing rubber compound. The film will develop full release properties after curing.

Maintenance: Apply a single touch-up coat when release force increases. Full mold re-preparation is typically needed after 50-80 cycles or when changing FKM grades.

Frequently Asked Questions (FAQ)

Q: Is LK-9540-FKM compatible with FFKM (perfluoroelastomer) processing?

A: Yes, LK-9540-FKM has been successfully tested with FFKM compounds at temperatures up to 250°C for short durations. For continuous FFKM processing above 230°C, please contact our technical team for grade recommendations.

Q: Does it affect post-curing adhesion or bonding?

A: No. The non-transfer formulation ensures demolded FKM parts are completely free of release agent residue. Parts can proceed directly to post-curing, bonding, or assembly processes without cleaning.

Q: What solvents can be used for dilution if needed?

A: LK-9540-FKM is supplied ready-to-use. If dilution is required for specific application methods, use only the recommended fluorinated solvent thinner (LK-Thinner-F series). Do not use generic solvents as they may affect film formation.

Q: What is the minimum order quantity for trial evaluation?

A: We offer 1-liter evaluation samples for qualified customers. Contact our sales team with your FKM grade, mold specifications, and processing conditions for sample recommendations and application guidance.



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