

NBR O-Ring Production Solvent-Based Mold Release Agent High Temperature 200 Celsius Resistance

Our Product Introduction

Basic Information

- Place of Origin: Guangdong, China
- Brand Name: Lubekote
- Certification: ISO 9001:2015, RoHS, SGS
- Model Number: LK-9526-NBR
- Minimum Order Quantity: 20 Liters
- Price: USD 15-22 / Liter
- Packaging Details: 20L HDPE drum, 200L steel drum, export-grade pallet with shrink wrap
- Delivery Time: 5-7 working days for stock, 15-20 days for production
- Payment Terms: T/T, L/C, PayPal, Western Union
- Supply Ability: 30000 Liters per Month



Product Specification

- Product Type: Solvent-Based Semi-Permanent Mold Release Agent
- Target Rubber: NBR (Nitrile Butadiene Rubber)
- Application: O-Rings, Seals, Gaskets, Hydraulic Seals
- Solvent Base: Aliphatic Hydrocarbon Blend
- Release Cycles Per Application: 8-12 Cycles
- Maximum Operating Temperature: 200°C
- Appearance: Clear To Slightly Yellow Liquid
- Specific Gravity: 0.78-0.82 G/cm³
- Flash Point: >45°C (Closed Cup)
- Shelf Life: 12 Months (Unopened, 5-35°C)
- Drying Time At 150°C Mold: 30-60 Seconds
- Packaging Options: 1L, 5L, 20L, 200L
- Highlight: **NBR O-Ring mold release agent,**

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Solvent-Based Mold Release Agent for NBR O-Ring Production

Product Introduction

Lubekote LK-9526-NBR is a premium solvent-based semi-permanent mold release agent engineered for NBR (Nitrile Butadiene Rubber) O-ring and precision seal manufacturing. NBR is the most widely used elastomer for sealing applications due to its excellent resistance to oils, fuels, and hydraulic fluids. However, the high acrylonitrile content that gives NBR its superior chemical resistance also increases its surface tackiness during vulcanization, making demolding particularly challenging. LK-9526-NBR utilizes an advanced cross-linking polymer system dissolved in a fast-evaporating aliphatic hydrocarbon solvent blend. When applied to hot molds, the solvent flashes off rapidly, leaving behind a chemically bonded release film that remains stable up to 200°C, making it ideal for high-temperature NBR curing processes including injection, compression, and transfer molding.

Key Features & Benefits

200°C Thermal Stability: The release film maintains its integrity at sustained mold temperatures up to 200°C, ensuring consistent performance throughout extended production runs without thermal degradation or release failure.

Exceptional Durability of 8-12 Cycles: Single application provides effective release for 8-12 molding cycles on complex O-ring molds, reducing application frequency and labor costs by 70-80% compared to conventional release agents.

Rapid Solvent Evaporation: The aliphatic hydrocarbon solvent system flashes off within 30-60 seconds on a hot mold (150°C), minimizing production cycle interruption and enabling fast mold turnaround.

Precision Demolding for Fine Details: Forms an ultra-thin (<1 micron) release film that preserves O-ring groove geometries, sharp edges, and surface finish details critical for sealing performance.

No Mold Build-Up: Unlike silicone-based release agents that progressively accumulate residue, LK-9526-NBR's self-limiting film formation prevents mold build-up, maintaining dimensional accuracy.

Universal Mold Compatibility: Suitable for steel, stainless steel, aluminum, and chrome-plated mold surfaces commonly used in O-ring production.

Why Choose Us

Our company brings 12+ years of specialization in rubber processing chemicals, supported by collaborative R&D programs with German polymer research institutes and US application laboratories. We are a national high-tech enterprise with 7 invention patents and 3 utility patents in release agent technology. Our products are validated by ISO 9001:2015 quality management systems and comply with RoHS and REACH regulations for global market access. Each batch is tested for demolding force (ASTM D1894 modified), thermal stability (TGA analysis), and film uniformity (contact angle measurement). We serve over 200 rubber manufacturers worldwide, including major automotive sealing suppliers. Our technical team provides customized formulation adjustments for specific NBR compounds, including those with special plasticizers, fillers, or curing systems. We offer free sample testing with detailed performance reports before bulk orders.

Technical Parameters

Parameter	Specification
Product Type	Solvent-Based Semi-Permanent Mold Release Agent
Target Rubber	NBR (Nitrile Butadiene Rubber), HNBR
Solvent Base	Aliphatic Hydrocarbon Blend
Release Cycles per Application	8-12 Cycles
Maximum Mold Temperature	200°C
Appearance	Clear to Slightly Yellow Liquid
Specific Gravity	0.78-0.82 g/cm ³ at 25°C
Flash Point	>45°C (Closed Cup Method)
Shelf Life	12 Months (Unopened, 5-35°C)

Application Instructions

Mold Preparation: Clean mold cavities thoroughly using a suitable solvent-based mold cleaner (we recommend Lubekote Mold Cleaner MC-100). Remove all oil, grease, and previous release agent residues. Ensure mold is completely dry and preheated to operating temperature.

Application Method: Use an HVLP (High Volume Low Pressure) spray gun at 1.5-2.5 bar atomizing pressure. Hold the spray gun 20-30 cm from the mold surface. Apply 2-3 light, even passes to achieve complete coverage without pooling or runs.

Curing: Allow 30-60 seconds between coats for solvent evaporation. After the final coat, cure for 2-3 minutes before starting production. The release film thermally cross-links on the hot mold.

Touch-Up: When release force begins increasing (typically after 8-12 cycles), apply a single light touch-up coat. Full mold re-cleaning is only needed every 50-100 cycles or when changing rubber compounds.

Frequently Asked Questions (FAQ)

Q: Can LK-9526-NBR be used with HNBR (Hydrogenated NBR)?

A: Yes, LK-9526-NBR is fully compatible with HNBR compounds. The higher curing temperatures typical of HNBR processing (up to 190°C) are well within the product's 200°C thermal stability range.

Q: What safety precautions are needed for solvent-based products?

A: Use in well-ventilated areas with local exhaust ventilation. Wear chemical-resistant gloves (nitrile recommended), safety goggles, and appropriate respiratory protection. Avoid open flames and sparks as the product contains flammable solvents.

Q: Does it leave residue that affects O-ring sealing performance?

A: No. The non-transfer formulation ensures the release film stays on the mold surface. Demolded O-rings are free from release agent residue and meet all surface quality specifications for sealing applications.

Q: What is the recommended storage condition?

A: Store in a cool, dry, well-ventilated area at 5-35°C, away from direct sunlight, heat sources, and ignition sources. Keep containers tightly sealed. Protect from moisture.

Q: How does it compare to water-based alternatives for NBR?

A: Solvent-based LK-9526-NBR offers faster evaporation and film formation on hot molds (30-60 seconds vs 2-3 minutes for water-based), making it preferable for high-speed automated O-ring production lines where cycle time is critical.



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