

Water-Based Mold Release Agent for Carbon-based Composite Bipolar Plate with High-Temperature Stability and No Residue

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Lubekote
- Certification: ISO 9001
- Model Number: xxxxx
- Minimum Order Quantity: None
- Price: 1-99 usd
- Packaging Details: 25L, 200L
- Delivery Time: 5-15 working days
- Payment Terms: T/T
- Supply Ability: 20T/week



Product Specification

- Classification: Chemical
- Name: Mold Release Agent For Composite
- Brand Name: Lubekote
- Odor: Slight
- Place Of Origin: China
- Application: Car Battery Cover
- Packaging: 1 Gallon Pail
- Storage Temperature: 10-30°C
- Type: Composite
- Highlight: **Carbon-based Composite Bipolar Plate Mold Release Agent**
High-Temperature Stability Composite Release Agent
No Residue Water-Based Release Agent

Product Description

Water-Based Mold Release Agent for Carbon-based Composite Bipolar Plate

Product Description

LubeKote 9519A is a versatile, water-based release agent engineered for the high-temperature demands of composite manufacturing, particularly in the production of advanced components like carbon-based composite bipolar plates. As a universal solution for epoxy, polyester, vinyl ester, phenolic, and other thermoset resins, it ensures flawless demolding without compromising the critical properties of the finished part. Formulated with advanced polymeric resins, LubeKote 9519A creates a durable, non-transferring film that is essential for maintaining the electrical integrity and surface quality of sensitive composite materials.

Key Features & Advantages

Universal Compatibility: Effectively releases a wide range of thermoset resins, including epoxy, phenolic, polyester, and vinyl ester, from all common mold surfaces, including steel.

Zero Contamination & No Residue: Leaves no trace on the molded part, guaranteeing that critical functional properties like electrical conductivity, gas tightness, and surface resistivity remain entirely unaffected.

Extended Mold Cleanliness: Dramatically reduces mold fouling, allowing for prolonged production runs. In applications like bipolar plate molding, this can extend cleaning cycles to just once per week, minimizing downtime.

Water-Based & Odorless: Provides a safe and environmentally friendlier alternative to solvent-based agents, with no strong odors, improving workplace conditions.

High-Temperature Stability: Performs reliably in demanding thermal cycles, from application at 60-70°C through curing at 150°C, ensuring consistent release performance.

Durable Film & Multiple Releases: Its robust film-forming capability often allows for several demolding cycles per application, reducing material consumption and increasing productivity.

Technical Specifications

Property	Specification
Product Name	LubeKote 9519A
Type	Water-Based Release Agent
Appearance	Milky White Liquid
Coverage	20 - 25 m ² /Liter
Shelf Life	1 Year

Application Guidelines for Bipolar Plate Production

Mold Preparation: Ensure the steel mold is perfectly clean, dry, and free from all previous residue.

Application: Apply a thin, even coat of LubeKote 9519A via spray gun onto the mold surface at a temperature of 60-70°C.

Drying/Curing: Allow the agent to dry completely. The mold is then heated to the processing temperature of 150°C.

Molding Process: Proceed with the standard process: loading the graphite/phenolic (or epoxy) compound, applying heat and pressure for the 20-minute cure cycle.

Demolding: Cool the mold to approximately 70°C. The part will release cleanly and easily, ready for the next cycle. A new coat is typically only required after multiple productions.



FAQ

How does a release agent like LubeKote 9519A benefit the production of composite bipolar plates?

It is critical for achieving a perfect surface finish and maintaining the plate's functional properties. By preventing the composite from sticking to the steel mold, it ensures easy demolding without leaving any residue that could degrade electrical conductivity or gas tightness.

Why is the "no residue" property so important?

Any residual film on the bipolar plate can act as an insulator, severely compromising its electrical performance and conductivity in the final application, such as a fuel cell or battery. LubeKote 9519A is proven to have zero transfer, safeguarding these vital characteristics.

Can this agent really extend mold cleaning cycles to a week?

Yes. Its formulation is designed to resist build-up. In the described bipolar plate process, the minimal fouling allows for sustained production over many cycles, significantly reducing the frequency of cleaning shutdowns.

Is it suitable for use on high-temperature steel molds?

Absolutely. LubeKote 9519A is specifically formulated to withstand the thermal stress of processes where molds are heated to 150°C and above, providing a stable and reliable release barrier.

How does being water-based make it a better choice?

Water-based agents like 9519A are safer to handle (non-flammable), have low VOCs, and are more environmentally friendly. They also eliminate the health and safety concerns associated with solvent fumes, creating a better working environment.

Shanghai LoreChem Co., Ltd. was established in 2008. It is a high-tech enterprise which is dedicated to serve releasing products which involve semi-permanent release agent, anti-sticking, surface lubrication and thermal reactive adhesive. Shanghai LoreChem has been improving product quality for 15 years. The releasing products are mainly applied in rubber, polyurethane and composite industry. The brand of LubeKote for release agent and Thinkbond for adhesive have been registered in China. Both of them are well known in the industry.

Shanghai LoreChem's business is all over the domestic and foreign high-end production enterprises by providing professional technical solutions and services. The company's long-term goal is to become one of the best suppliers of release agent in Asia.



Shanghai Lorechem Company Limited



15901891635



export@lorechem.com



shlorechem.com

Floor 2-3, Building 20, Hongxing International Plaza, Lane 1818, Lianhang Road, Pujiang, Shanghai