MOLYKOTE® 7 Release Compound

Dimethyl silicone compound for a variety of lubrication and protection applications

Features

- Maintain serviceable consistency from -40 to 204°C (-40 to 400°F)
- Practically nonvolatile
- Moisture-resistant
- Electrically insulating
- Excellent rubber lubrication
- Excellent release and sealing properties
- Resistant to oxidation
- Shows little tendency to dry out in service
- Permitted for food contact use under FDA Regulation 21 CFR 175.300
- Listed under NSF Standard 51 for use in food processing equipment
- Listed under NSF Standard 61 for use in potable water applications

Composition

- Greaselike materials containing an inert amorphous silica filler in combination with selected polydimethyl silicone fluids

Applications

MOLYKOTE® 7 Release Compound can be used in applications including: mold release agent for foundry shell and core molds; break-in treatment for bladders on tire presses; rubber lubricant and preservative; release agent for adhesives and glues; cable-pulling lubricant to draw rubber-covered cable through conduit; release agent for plastic extruders and processing equipment; and release agent for plastic film packaging machines.

Description

MOLYKOTE® 7 Release compound is a versatile, heat-stable, highly effective silicone release agent. Used with plastics, rubber, metals and adhesives, it gives long-lasting release, yet remains inert to most materials.

Typical properties

Specification writers: These values are not intended for use in preparing specifications. Please contact your local MOLYKOTE® sales representative prior to writing specifications on this product.

Standard(1)	Test	Unit	Result
Physical			
CTM 0176	Color		White, translucent
CTM 0191	NLGI		#1
	Penetration,		
	worked 60	mm/10	270
	worked 100,000	mm/10	322
CTM 0033A	Bleed, 24 hr/200°C (392°F)	%	6.8
CTM 0033A	Evaporation, 24 hr/200°C (392°F)	%	0.8
	Service temperature range	°C	-40 to 204
		°F	-40 to 400
CTM 0022	Specific gravity at 25°C (77°F)		1.0
Electrical			
CTM 0112	Dielectric constant		
	at 100 Hz		2.85
	at 100 kHz		2.83
CTM 0112	Dissipation factor		
	at 100 Hz		<0.0001
	at 100 kHz		<0.0001
CTM 0114	Dielectric strength, 50 mil gap	volts/mil	>450
	Volume resistivity at 23°C (73°F)	ohm-cm	2.8×10^{15}
CTM 0171	Arc resistance	seconds	126

(1)CTMs (Corporate Test Methods) correspond to standard ASTM (American Society for Testing and Materials) tests in most instances.

Listings/specifications

MOLYKOTE® 7 Release Compound is permitted for food contact use under FDA Regulation 21 CFR 175.300, covering polymeric coatings applied as continuous film over a metal substrate. Additionally, this compound is listed under NSF Standard 51 for use in food processing equipment and NSF Standard 61 for use in potable water applications.

How to use

For best results, clean and dry surfaces before application.

MOLYKOTE® 7 Release Compound can be applied by hand, by specially designed automated equipment, or by brushing or wiping. When using some high-pressure dispensing equipment, separation and compaction can occur. Certain designs of grease guns may seize with silicone compound; test prior to using.

Handling precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION.

Usable life and storage

When stored at 25°C (77°F), MOLYKOTE® 7 Release Compound has a shelf life of at least 60 months from date of manufacture. Refer to product packaging for “Use By” date.

Packaging

This product is available in different standard container sizes. Detailed container size information should be obtained from your nearest MOLYKOTE® sales office or MOLYKOTE® distributor.

Limitations

MOLYKOTE® 7 Release Compound should not be applied to any surface that will be painted or finished. Such coatings may not adhere to the silicone-treated surfaces. If contaminated by a silicone coating, parts can be wiped or washed with solvent or washed with detergent. MOLYKOTE® 7 Release Compound should not be applied to O-rings or other components made from silicone rubber because they can deteriorate the silicone rubber. This compound will also slightly swell natural butyl rubbers. Any rubber should be tested for excessive swell or shrinkage.

Because each application may vary in chemical composition, pressure, flow velocity, relubrication requirements and equipment design, the silicone compound should be tested before adopting for regular use.

This compound is not intended for use with liquid oxygen or other strong oxidizing chemicals and should not be used in applications requiring LOX compatibility.

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