

MOLYKOTE® G-3500 Grease

Nonconductive synthetic grease minimizes wear and fretting on plastic and metal gears

Proven performance

Application: Multistage electric parking brake gear train using both sintered metal and polymer spur gears.

Problem: Previous greases experienced significant amounts of gear tooth wear after 15 day/150,000 cycle endurance testing.

Solution: Due to proximity of an electric motor to the gearbox, a nonconductive grease is required, eliminating PAO and mineral oils as options.

Product: MOLYKOTE® G-3500 Grease – a nonconductive polyalkylene glycol (PAG)-based grease – has shown significant reduction in gear tooth wear on both sintered metal and polymer gears and splines in endurance testing compared with the previously used competitive material.

Long-lasting lubrication performance for electric parking brake components

To meet trends for increased safety and convenience, auto manufacturers continue to advance component design, leading to a nontraditional mix of materials and conditions. Electric parking brakes, which offer both enhanced safety and ease of use – as well as reduced weight compared with conventional brake systems – often feature a complex system using plastics and metals and various electronics, creating lubrication challenges for traditional lubricants.

MOLYKOTE® G-3500 Grease is a PAG-based grease designed to be used as a lubricant for metal/metal and metal/plastic combinations, including sintered metal bearings and various polymers, such as those found in plastic gears and gearboxes. It is specifically designed for use with electric motors where electrical resistivity is required, in applications including automotive electric parking brake actuation systems.

A synthetic grease with anti-wear and anti-fretting performance, MOLYKOTE® G-3500 Grease provides benefits for automotive manufacturing.

- Wide service-temperature range (-40°C to +150°C)
- Enhanced oxidation stability
- Good elastomer and polymer compatibility
- PAG base fluid with solid lubricants for wear protection
- Lithium complex thickened



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	Property	Unit	Result
	Color		Orange
ASTM D217	Penetration, unworked	mm/10	265-295
ASTM D217	Penetration, worked 60 strokes	mm/10	265-305
	Specific gravity @ 25°C		0.97 +/- 0.1
ASTM D6184	Bleed, 24 hr @ 150°C	%	< 5
ASTM D6184	Evaporation, 24 hr @ 150°C	%	< 2
ASTM D566	Dropping point	°C/°F	>260/>500
ASTM D1748	Low-temperature torque @ -40°C		
	Starting	N-m	0.630
	Running	N-m	0.134
	Elastomer compatibility, 72 hr @ 150°C		
ASTM D471	Swell – NBR	%	5 max
ASTM D2240	Durometer – NBR	%	10 max



MOLYKOTE® G-3500 Grease can be used to lubricate metal/metal and metal/plastic combinations, such as those found in plastic gears and gearboxes.

How to use

MOLYKOTE® G-3500 Grease can be applied by hand via brushing or wiping, by grease gun, or by automated dispensing equipment.

Packaging

MOLYKOTE® G-3500 Grease is supplied in 18 kg (40 lb) pails.



Learn more: Contact us

To learn more about using MOLYKOTE® G-3500 Grease in automotive applications such as electric parking brakes, contact your MOLYKOTE® technical representative or visit molykote.com.



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