



Molykote® D-708 Anti-Friction Coating for Brake Pad Clips

Reduce friction, noise and roughness with clean and durable dry-film lubrication

Proven performance

Customer: A leading Tier 1 supplier manufactures brake systems for various global OEM car and light-duty truck platforms.

Problem: Excessive friction between the brake-pad back plate and retainer clips on some caliper designs had the potential to increase noise and create inconsistent operations. “Wet” lubricating greases and pastes, exposed to road contaminants, were not favored.

Solution: Dow Corning lubrication experts validated the superior performance of a “dry-film” anti-friction coating (AFC). Spray-coated pad clips, supplied by a coating specialist, resolved the issue and resulted in cleaner brake assembly.

Product: Molykote® D-708 Anti-Friction Coating is now OEM-approved and specified for lubricating pad-retainer clips on disc-brake caliper assemblies for a number of vehicle launches.

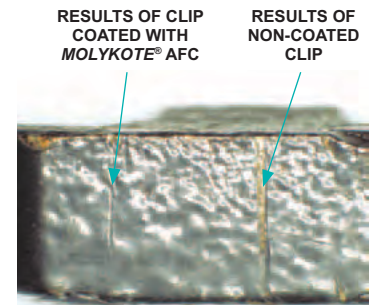
Proper lubrication helps reduce brake noise

On disc-brake caliper assemblies, proper lubrication between the brake-pad backing plate and retainer clips is critical. Without lubrication, potential problems include:

- High friction and wear, resulting in excessive noise
- Inconsistent brake-pad movement, causing roughness and uneven pad wear

“Wet” greases and pastes, exposed to road contaminants and harsh conditions, may not be desired because of possible water washout, dust and dirt buildup, evaporation, or oxidation.

“Dry” lubricants, such as anti-friction coatings (AFCs), can provide more precise friction control with a clean and slippery film, which fills in surface irregularities to reduce wear even under extreme loads. AFCs also provide superior performance in extreme heat and cold, resist degradation, and dampen noise-producing vibrations.



Non-coated pad clips can cause wear and noise on a brake-pad back plate, compared to AFC-coated pad clips.

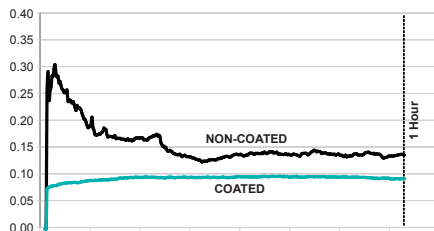
Rely on Molykote® D-708 Anti-Friction Coating

Molykote® D-708 Anti-Friction Coating can provide long-lasting metal/metal lubrication between brake-pad backing plates and spring-loaded retainer clips used on disc-brake caliper assemblies. Formulated with PTFE (polytetrafluoroethylene) solid lubricants in an organic binder-solvent system, this paint-like “dry” lubricant offers disc-brake designers these advantages:

- Controlled friction with less wear and potential noise
- Minimized roughness and uneven pad wear
- Durability across a wide service-temperature range
- Resistance to water washout, road contaminants and oxidation
- Cleaner assembly of brake-caliper components
- Identified by Tier 1 suppliers for use on several OEM vehicle platforms

Other automotive applications for Molykote D-708 Anti-Friction Coating include parts for door and locking mechanisms, seat-belt actuator systems, seat-adjustment tracks, sunroof slides, threaded fasteners, and more.

**Coefficient of Friction Testing:
Typical AFC**



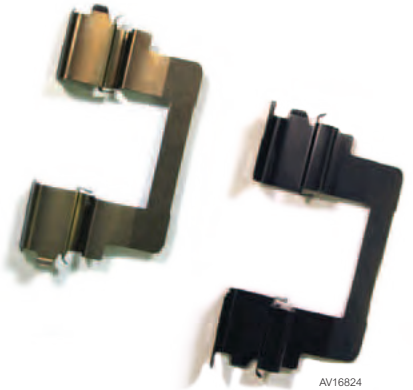
Non-coated pad clips exhibit a much higher coefficient of friction than AFC-coated pad clips.



Typical Properties

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning Sales Application Engineer or Dow Corning Customer Service before writing specifications on this product.

	Property	Unit	<i>Molykote</i> [®] D-708 Anti-Friction Coating
As Supplied			
	Color		Black
	Composition		Polytetrafluoroethylene (PTFE) solid lubricants in an organic binder-solvent system
	Viscosity, Zahn #3 Cup	sec.	7-10
	Cure Time at 180°C (356°F)	min.	60
	Cure Time at 200°C (392°F)	min.	20
	Coverage, 10 microns film thickness	ft ² /lb m ² /kg	60 19
As Cured			
	Coefficient of Friction 50 cycles, 250 g, 20 mm stroke		0.11
	Temperature Range	°C (°F)	-60 to 240°C (-76 to 464°F)



Proper Lubricant Use

Molykote D-708 Anti-Friction Coating can be applied by spraying, dipping or brushing. Proper surface pretreatment is important. For high-volume automotive applications, such as brake-pad backing plates and retainer clips, Dow Corning has a network of coating specialists. With advanced application methods and technical experts, a qualified coating service is recommended to reduce waste and enhance quality from prototype validation to production.

Product Packaging

Molykote D-708 Anti-Friction Coating is available in 18 liter, 72.2 kg (4.75 gal, 159 lb) pails. Test samples can be provided.

Learn More: Contact Us

To learn more about using *Molykote* D-708 Anti-Friction Coating in automotive brake-system applications, contact your Dow Corning technical representative, visit dowcorning.com/auto or send an email via dowcorning.com/auto/ContactUs.



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