MOLYKOTE® HSC Plus Paste

Solid lubricant paste; no intentional lead or nickel

Features

- Can be used over a wide range of temperatures (-30°C/-22°F to 1,100°C/2,012°F)
- Enables nondestructive dismantling, even after long use at high temperatures
- High load-carrying capacity
- Due to stated coefficient of friction, defined pre-stressing forces for bolted joints can be achieved
- Good corrosion protection
- Good electrical conductivity

Composition

- Mineral oil
- Thickening agents
- Solid lubricants
- Metal powder (lead-free)

Applications

For metal/metal combinations that are subjected to high temperatures and frictional contacts that typically for bolted joints, are free from lead or nickel. Suitable for lubrication points with low speeds, subjected to high temperatures and corrosive effects, and also require a low and constant coefficient of friction. As a contact lubricant for electrically conducting components. Used successfully for stud bolts in industrial turbines, stud bolts in turbochargers of diesel engines, flanged connections in chemical and petrochemical plants.

How to use

If possible, clean the thread and used bolts with a wire brush. Spread an adequate amount of the paste on the contact areas in order to obtain a good seal. An excess is not harmful. In order not to alter the properties, the paste must not be mixed with greases or oils.

To enable this product to be applied more quickly and cleanly to larger areas, it is advisable to use the spray can.

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
	Color		Copper
Penetration, density, viscosity			
ISO 2137	Unworked penetration	mm/10	250-280
ISO 2811	Density at 20°C (68°F)	g/ml	1.4
Temperature			
	Service temperature[2]	°C	-30 to 1,100
		°F	-22 to 2,012
ISO 2176	Drop point	°C	None
		°F	None
Load-carrying capacity, wear protection, service life			
	Four-ball tester		
DIN 51 350 pt.4	Weld load	N	4,800
DIN 51 350 pt.5	Wear scar under 400 N load	mm	0.6
DIN 51 350 pt.5	Wear scar under 800 N load	mm	1.1
	Almen-Wieland machine		
	OK load	N	20,000
	Frictional force	N	1,700
Coefficient of friction			
	Screw test: Erichsen[3]		
	Screw test - µ thread		0.14
	Screw test - µ head		0.09
	Initial break-away torque[4]	Nm	120

[1]ISO: International Standardization Organization. DIN: Deutsche Industrie Norm.
[2]Temperature limit of solid lubricants.
[3]Coefficient of friction in bolted connection, M12, 8.8, on blackened surface.
[4]M12, with starting torque Ma = 56 Nm and heat treatment at 540°C/1,004°F, 21 h, bolt material: 21 Cr MoV 57 mat no. 1.7709.

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 or below 20°C (68°F) in the original unopened containers, this product has a usable life of 60 months from the date of production.

Specifically for aerosol packaging, this product has a usable life of 24 months from the date of production when stored between 5°C and 35°C in the original unopened container. Because it is an aerosol, punctures should be avoided, and containers should be kept away from heat, sparks and open flame.

Packaging

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

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