MOLYKOTE® 1000 Solid Lubricant Paste

Solid lubricant paste for bolted metal joints; contains no lead or nickel

Features & benefits

- Can be used over a wide range of temperatures (-30°C/-22°F to +650°C/1,202°F)
- High load-carrying capacity
- Enables nondestructive dismantling, even after long use at high temperatures
- Coefficient of friction unchanged in the area of oiled bolts, even after several bolt retightening and loosening processes
- Good corrosion protection

Composition

- Solid lubricants
- Mineral oil
- Thickener
- Powdered metal

Applications

Suitable for bolted joints that are subjected to high temperatures up to 650°C (1,202°F) and to corrosive effects – and that after assembling and the initial operation, have to be retightened or disconnected. In order to ensure constant pre-stressing forces, uniform and steady coefficients of friction of the lubricant are necessary. Used successfully for cylinder head bolts, nozzle head screws of plastic injection molding machines, bolted joints in the chemical industry, and also for the tension rings of centrifuges.

Description

MOLYKOTE® 1000 Solid Lubricant Paste is a lead- and nickel-free anti-seize paste used to reduce wear and optimize friction of threaded fasteners, or other metal-to-metal joints, enabling nondestructive dismantling, even after long exposure to high temperatures. It offers good corrosion protection, under high loads, over a wide temperature range.

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		Brown
Penetration, density			
ISO 2137	Unworked penetration	mm/10	280-310
ISO 2811	Density at 20°C (68°F)	g/ml	1.26
Temperature			
	Service temperature range[2]	°C °F	-30 to 650 -22 to 1,202
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	0.65
	Almen-Wieland machine		
	OK load	N	20,000
	Frictional force	N	2,600
Coefficient of friction			
	Screw test - μ thread[3]		0.13
	Screw test - μ head		0.08
	Initial break-away torque[4]	Nm	135
DIN 51 802	SKF-Emcor method		1

[1] ISO: International Standardization Organization. DIN: Deutsche Industrie Norm.
[2] Temperature resistance of solid lubricants.
[3] Coefficient of friction in bolted connection, M12, 8.8, on blackened surface.
[4] M 12, with starting torque Ma = 62 Nm and heat treatment at 540°C (1,004°F), 21 hr, bolt material: no. 1.7709.