

MOLYKOTE® HSC PLUS

SOLID LUBRICANT PASTE

Solid lubricant paste; contains no lead or nickel

FEATURES

- ◆ Can be used over a wide range of temperature (-30°C to 1100°C)
- ◆ Enables non-destructive dismantling, even after long use at high temperatures
- ◆ High load-bearing 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 which, 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 of gas and steam turbines, stud bolts of turbochargers of diesel engines, flanged connections in chemical and petrochemical plants.

TYPICAL PROPERTIES

Specifications writers: These values are not intended for use in preparing specifications. Please contact Dow Corning GmbH, Wiesbaden, Germany before writing specifications on this product.

Standard*	Test	Units	Result
	Colour		Copper
	Penetration, density, viscosity		
ISO 2137	Unworked penetration	mm/10	250 - 280
ISO 2811	Density at 20°C	g/ml	1.4
	Temperature		
	Service temperature ¹	°C	-30 to 1100
ISO 2176	Drop point	°C	None
	Load-carrying capacity, wear protection, service life		
	Four-ball tester		
DIN 51 350 pt.4	Weld load	N	4800
DIN 51 350 pt.5	Wear scar under 400N load	mm	0.6
DIN 51 350 pt.5	Wear scar under 800N load	mm	1.1
	Almen-Wieland machine		
	OK load	N	20000
	Frictional force	N	1700
	Coefficient of friction		
	Screw test: Erichsen ²		
	Screw test - μ thread		0.14
	Screw test - μ head		0.09
	Initial break-away torque ³	Nm	120

1. Temperature limit of solid lubricants

2. Coefficient of friction in bolted connection, M12, 8.8, on blackened surface.

3. M 12, with starting torque $M_a = 56$ Nm and heat treatment at 540°C, 21h, bolt material: 21 Cr MoV 57 mat no. 1.7709.

* ISO: International Standardisation Organisation

DIN: Deutsche Industrie Norm

HOW TO USE

How to apply

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. Use spray can in order to apply the product more quickly and cleanly to larger areas or poorly accessible places.

HANDLING PRECAUTIONS

A Product Safety Data Sheet should be obtained from your nearest Dow Corning sales office prior to use.

ATTENTION: Before handling, read product information, Product Safety Data Sheets and container labels for safe use, and any physical and/or health hazard information.

USABLE LIFE AND STORAGE

When stored at or below 20°C in the original unopened containers this product has a usable life of 60 months from the date of production.

Dow Corning will guarantee the usable life of this product until the date indicated on the packaging. This date is shown by the letters "EXP" (meaning Expiry) followed by 4 digits, which stand for the month (last day) and year. Example: "EXP 03/99" means use by 31 March 1999.

PACKAGING INFORMATION

This product is available in different standard container sizes. Detailed container size information should be

obtained from your nearest Dow Corning sales office or Dow Corning distributor.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

Dow Corning's Health, Environment and Regulatory Affairs (HERA) Department is available to support customers for their product safety needs. For further information, you can contact this group at:

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