

Greases and Waxes



Silicone Grease

A high vacuum grade grease, which is for use at system pressures lower than 10^{-6} mbar.

Ordering Information

Product Description	Order No.
Silicone, high vacuum grease, tube 50 g	H02400036
Silicone, high vacuum grease, pack 5 kg	H11251015

Fomblin® Grease

This grease is an excellent lubricant for sliding elastomer seals, and exhibits the chemical inertness typical of the Fomblin® range.

It has a very low vapour pressure and is suitable for use in the presence of gaseous and liquid oxygen under severe conditions.

The general purpose AR555 grease offered by Edwards has the basic properties of Fomblin®, but the vapour pressure is not specifically controlled. The vapour pressure is $<10^{-7}$ mbar at 20 °C.

Ordering Information

Product Description	Order No.
Fomblin® vacuum grease AR555 grade, syringe 100 g	H11350013

Krytox® Grease

DuPont Krytox® fluorinated greases are a family of multipurpose lubricants intended for use in speciality applications at elevated temperatures or in aggressive environments.

Ordering Information

Product Description	Order No.
	N. America
Krytox® 240AD, tube (57 g, 2 oz)	U30002525
Krytox® 240AD, tube (226 g, 8 oz)	U30002206
Krytox® 240AB, tube (57 g, 2 oz)	U30002536
Krytox® 240AB, tube (226 g, 8 oz)	U30002535
Krytox® 240AC, tube (57 g, 2 oz)	U30002538
Krytox® 240AC, tube (226 g, 8 oz)	U30002537
Krytox® LVP, tube (57 g, 2 oz)	U30002075
Krytox® LVP, tube (226 g, 8 oz)	U30002539

Waxes and Sealing Compounds (Mineral Based)

Apiezon® wax W is a low vapour pressure wax for sealing joints in high vacuum systems. This wax softens at 80-90 °C and has a vapour pressure at 80 °C of 10^{-3} mbar and at 20 °C of 10^{-8} mbar.

Apiezon® wax W40 is similar to type W, but has a lower softening point which makes it very suitable for flow sealing in or around vacuum joints. It is not recommended for use at temperatures above 30 °C. It has a vapour pressure at 20 °C of 10^{-7} mbar.

Apiezon® sealing compound Q remains firm for temperatures up to 30 °C, but is sufficiently pliable to permit easy moulding into position. It is an excellent material for shielding or blanking off sections of apparatus. The compound is easily applied and can be readily removed. It has a vapour pressure at 20 °C of 10^{-4} mbar.

Ordering Information

Product Description		Order No.
Apiezon® W wax	20 x 25 g	H02301014
Apiezon® W wax	pack 1 kg	H11176007
Apiezon® W40 wax	pack 250 g	H02301015
Apiezon® Q sealing compound	tin 1 kg	H02300012

Apiezon® Greases

A range of Apiezon® greases is offered for use on high vacuum systems and for many general applications in the laboratory. These high purity greases are non-toxic, easy to apply, easy to clean off and have long shelf lives.

Applications include:

- Lubrication of glass and metal taps in vacuum systems
- Sealing polymer joints in vacuum systems
- Leak detection
- Protecting metal contacts in vacuum-encapsulated relays
- Sealing polished and ground glass/metal surfaces
- Optical surfaces in vacuum systems and laser systems – does not cause clouding (L and M greases only)
- Non vacuum uses include lubrication of glass and metal taps in laboratory, medical and industrial applications
- Good "gettering" qualities (absorbs grease and chemical impurities) – ideal for electronics industry

Choice of grease depends largely on operating temperature (see below).

Anti Seize Greases

	AP100	AP101
Melting point	47 °C	>200 °C
Radiation resistant	No	No
Vapour pressure at 20 °C (mbar)	$<10^{-10}$	$<10^{-5}$
Comments	High vacuum; good lubrication, resists alkali, acid and corrosive gas; easily removed by most solvents. Particularly good for polished/ground glass joints.	Medium vacuum, heavy duty grease; wide temperature base, ideal for laboratory work.

Lubricant (unmodified)

	L	M
Melting point	47 °C	44 °C
Radiation resistant	Yes	Yes
Vapour pressure at 20 °C (mbar)	<10 ⁻¹⁰	<10 ⁻¹⁰
Comments	High vacuum, low temperature; nuclear, space industries; liquid gas chromatography	Similar to L grease, but stiffer; good gettering properties

Lubricant (polymers added)

	N	T	H
Melting point	43 °C	125 °C	N/A*
Radiation resistant	No	No	No
Vapour pressure at 20 °C (mbar)	<10 ⁻⁹	<10 ⁻⁸	<10 ⁻⁷
Comments	Rubbery, tenacious; cushions glass mating surfaces, ideal for burette taps. Cryogenic.	As N grease, but higher temperature; glass and general lubrication	Very high temperature; becomes stiffer as temperature increases

* Grease H can withstand temperatures up to 250 °C without melting

Ordering Information

Product Description	Order No.	
	Europe	N. America
Apiezon [®] L grease (50 g)	H02301041	H02301041
Apiezon [®] L grease (25 g)	N/A	H02301042
Apiezon [®] M grease (100 g)	H02301040	H02301040
Apiezon [®] M grease (25 g)	N/A	H11151002
Apiezon [®] N grease (25 g)	H02301011	H02301011
Apiezon [®] T grease (25 g)	H02301018	H02301018
Apiezon [®] AP100 grease (50 g)	H02300043	H02300043
Apiezon [®] AP101 grease (50 g)	H02301044	H02301044
Apiezon [®] AP101 grease (4 kg)	H02301045	H02301045
Apiezon [®] H grease (25 g)	H11150001	H11150001