

Apiezon Greases Technical Data							
Grease Type	AP-100	AP-101	H	L	M	N	T
Vapor Pressure @20°C	- 8x10 ⁻¹¹	- 5x10 ⁻⁶	- 2x10 ⁻⁹	- 8x10 ⁻¹⁰	- 2x10 ⁻⁹	- 8x10 ⁻¹⁰	- 5x10 ⁻⁹
Melting Point @°C	47	-	-	47	44	43	125
Average Molecular Weight	-	-	1000	1300	950	2100	-
Specific Gravity @20°C	1.042	0.981	-	0.896	0.894	0.911	0.912



All stopcocks and movable joints in a high vacuum system must be satisfactorily lubricated, yet leakproof. The lubricant for such joints must not, obviously, contribute to the pressure within the system and must therefore be of extremely low vapor pressure at the temperature of operation. Also, the lubricant must be stable, easily applied and preferably easily removed when desired. Finally the lubricant must lubricate, an obvious statement but a necessary one since so many so-called high vacuum lubricants have in fact very poor lubrication properties.

All these desirable properties are to be found in the Apiezon greases. By virtue of their low vapor pressures and high purity the possibility of sample contamination when using Apiezon greases by "carry over" or adsorption is much reduced, and consequently the risk of interference in infrared and mass-spectra analysis is avoided.

Apiezon Grease L

Grease L is a good, general purpose, high vacuum grade with an estimated vapor pressure at 20°C of 8 x 10⁻¹¹ torr. It may be used on all ground joints in a vacuum system where it is essential to have a grease with good lubricant properties combined with an exceptionally low vapor pressure. Grease L softens and melts at about 47°C and is not recommended for joints likely to warm to over 30°C.

Of the Apiezon greases, Grease L has proved particularly popular as the stationary liquid phase in gas-liquid chromatography.

Apiezon Grease H

This grease, the latest addition to the Apiezon range of greases, will withstand temperatures up to 250°C without melting. In fact, it stiffens somewhat above 40°C, Vapor pressure is estimated to be 2 x 10⁻⁹ torr at 20°C. It is of a rubbery nature and is intended for the same applications as Grease T but where higher operating temperatures, are required. Grease H can be used at ambient temperature, and down to approximately -15°C but at this temperature it becomes sticky and is no longer a good lubricant.

Apiezon Grease M

This grease has an estimated vapor pressure at 20° C of 2 x10⁻⁹ torr, higher therefore than Grease L, and is used where a grease of such moderately low vapor pressure is adequate. It is used whenever a good lubricant is required and, being much cheaper than the other Apiezon greases, is recommended for use not only in vacuum work but as a good lubricant for general use throughout the laboratory.

As with Grease L, Grease M is not intended for use with joints above 30°C.

Apiezon Grease N

Grease N has been designed specifically for the lubrication of glass conical taps and similar joints where its rubbery nature allows the grease to form a cushion between the mating surfaces, thus acting as a highly effective lubricant while maintaining its function as a sealing medium. Grease N has an estimated vapor pressure at 20°C of 8 x 10⁻¹⁰ torr, and, as with greases M and L, is recommended for use up to temperatures of about 30°C.

Apiezon Grease T

Also of a rubbery nature, Grease T is designed for lubricating glass taps and for general purposes where operating temperatures necessitate the use of a relatively high melting point grease. Grease T melts at 125°C and has an estimated vapor pressure at 20°C of 5 x 10⁻⁹ torr. Although Grease T is particularly useful at higher temperatures it can also be used at ambient temperatures and may therefore be applied and used at temperatures between 0° and 120°C.

Apiezon AP Anti-Seize Greases

These two greases are specifically designed to prevent ground-glass, stop-cocks, and taps from jamming. For these applications type AP greases have been found to be markedly superior to other lubricants such as petroleum jellies and silicones. As a result they are ideal lubricants for general laboratory use. Packed in tubes for ease of application, AP greases can be easily removed by wiping with a soft cloth or washing with an aqueous glassware detergent.

Apiezon Grease AP 100: A high vacuum grease with a softening point of 30°C. Vapor pressure is estimated to be 8 x 10⁻¹¹ at 20°C.

Apiezon Grease AP 101: A general purpose stop-cock grease suitable for moderate vacuum use with a very wide range of temperature from -40°C to 180°C. Vapor pressure is estimated to be 5 x 10⁻⁶ at 20°C.

Part No.	Description	Price
L-25	Apiezon L, 25g. tube	
L-50	Apiezon L, 50g. tube	
H-25	Apiezon H, 25g tube	
M-25	Apiezon M, 25g. tube	
M-100	Apiezon M, 100g. tube	
N-25	Apiezon N, 25g.tube	
T-25	Apiezon T, 25g. tube	
AP-100	Apiezon Grease; AP100, 50g tube	
AP-101	Apiezon Grease; AP101, 50g tube	