

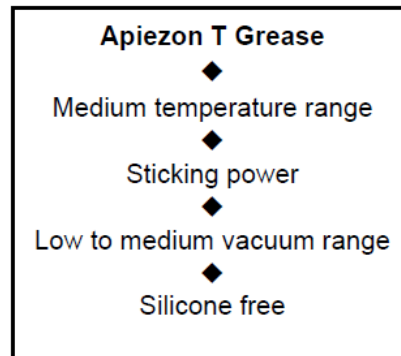
APIEZON® T

Medium Temperature
Vacuum Grease

Introduction

Apiezon T grease is a filled hydrocarbon grease for general sealing and lubrication in the medium temperature range.

The key features of the product are shown in the table opposite.



Medium temperature range

Apiezon T grease can be used over a wide range of temperatures from 10°C to 120°C, while its optimum consistency is retained at temperatures of 25°C to 50°C.

Apiezon T grease is specifically recommended for sealing and lubrication in medium temperature applications, but not for highly stressed bearings.

Added cushioning

A high molecular weight polymeric additive gives Apiezon T grease a tenacious consistency and provides extra cushioning between mated surfaces. By absorbing vibrations in equipment Apiezon T grease is invaluable in fragile glass to glass joints which continually risk fracture.

Sticking power

Apiezon T grease is a very tenacious grease conferring excellent cohesive strength.

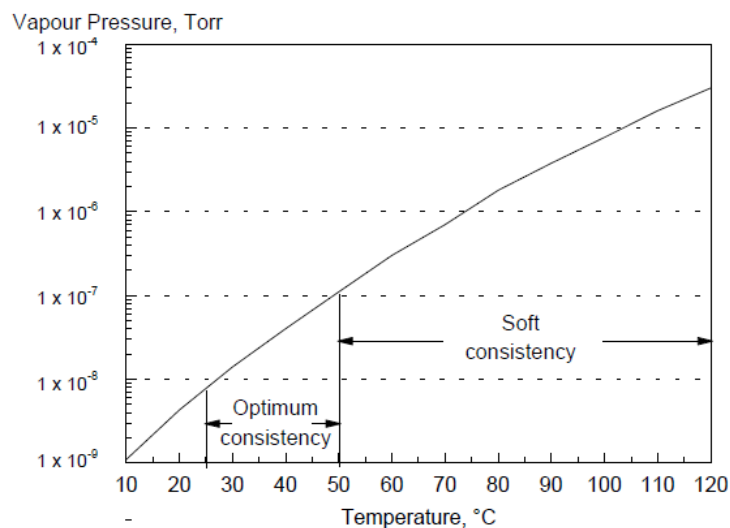
Mated joints when joined together stay together, ensuring an efficient gas tight seal.

Under vacuum

At its higher operating temperature range, Apiezon T grease exhibits good vacuum properties in the lower to medium vacuum range, while at lower temperatures it can be used in the high vacuum range. Full information on the vapour pressure of Apiezon T grease is shown in the graph below.

Should you require a vacuum grease conferring better vapour pressure characteristics than Apiezon T grease, you may like to consider Apiezon L, M, N or H grease. Please refer to the individual product data sheets for these products.

Vapour pressure over working temperature range



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Continued

Clean

Strong absorption properties of the Apiezon greases give them powerful "gettering" action, i.e. the power to absorb greasy or chemical impurities on metal and glass surfaces. This is of considerable value in the electronics industry where scrupulous cleanliness of metal surfaces is required.

An Apiezon grease has no contaminating effect on electrical equipment and is easily removed by hydrocarbon or chlorinated solvents, taking with it many trace impurities which are not removed by solvents alone.

Non silicone

Being hydrocarbon based Apiezon T grease does not suffer with the problems of "creep" or "carry over" which is associated with silicone greases. This is a significant benefit for scientific and industrial users alike in avoiding contamination.

Typical Properties

<i>Physical property</i>		Value
<i>Dropping point - ASTM.D 566-02,</i>	°C	112 to 137
	°F	233 to 278
<i>Typical working temperature range,</i>	°C	10 to 120
	°F	50 to 248
<i>Vapour pressure @ 20°C / 68°F, Torr</i>		4.6 x 10 ⁻⁹
<i>Relative density @ 20°C / 68°F, Torr</i>		0.912
<i>Resistant to radiation</i>		Not recommended
Thermal / Electrical Property		
<i>Coefficient of expansion per °C over 20°C – 30°C</i>		0.00073
<i>Volume resistivity, Ω cm</i>		3.3 x 10 ¹²
<i>Permittivity</i>		2.3
<i>Loss tangent</i>		<0.0001
<i>Surface breakdown at flash over, kV</i>		24
<i>Electrical strength, V/mil(0."001)</i>		730

Industry approvals

Apiezon T grease is used extensively throughout all areas of science and industry. It has gained prestigious approvals for use from both NATO and the US Navy.

In addition Apiezon T grease has found a niche as a barrier to oxygen transmission in both vacuum and non-vacuum areas of use.