



Lubricants Report



Product Data Sheet from Shell Lubricants

PDS# 5.12.10

AEROSHELL* GREASES

PREMIUM GREASES FOR AVIATION APPLICATIONS

PRODUCT LINE

AEROSHELL Grease 5 is a general aviation grease suitable for wheel bearings and high speed applications including magnetos, generators and starters operating in temperatures from -23°C to $+177^{\circ}\text{C}$.

AEROSHELL Grease 6 is a multi- purpose airframe grease for use in anti-friction bearings, gearboxes and plain bearings operating in temperatures between -40°C and $+121^{\circ}\text{C}$.

AEROSHELL Grease 7 is a multi- purpose grease that may be used on turbine engined aircraft. It is an advanced grease designed to cover a wide temperature range from -73°C to $+149^{\circ}\text{C}$.

AEROSHELL Grease 14 is designed for greasing applications on helicopters including main and tail rotor bearings, and splines. It has outstanding anti-fret properties and it may be used over the temperature range from -54°C to $+93^{\circ}\text{C}$.

AEROSHELL Grease 17 is a fully synthetic grease containing 5% molybdenum disulphide. It is particularly suitable for lubricating heavily loaded sliding surfaces such as bogie pins on aircraft landing gear assemblies over the temperature range of -73°C to $+149^{\circ}\text{C}$.

AEROSHELL Grease 22 is a fully synthetic grease designed for severe operating conditions including high bearing loads, high speeds and where long grease retention and high water resistance are required.

AEROSHELL Grease 22 covers the operating temperature from -65°C to $+204^{\circ}\text{C}$.

AEROSHELL Grease 33 is our newest generation multi-purpose synthetic grease. It is specifically designed to lubricate a wide range of applications and operating conditions on commercial aircraft. It is approved for Boeing's BMS 3-33 specification and it covers the operating temperature range between -73°C and $+121^{\circ}\text{C}$.

AEROSHELL Grease 33MS shares the same advanced grease technology AeroShell Grease 33, AeroShell Grease 33MS also possesses the extreme pressure (EP) characteristics provided by molybdenum disulphide. This grease contains a synthetic oil and must not be used with incompatible seal materials.

PERFORMANCE BENEFITS

AEROSHELL greases have been developed for a wide variety of aircraft lubrication applications. Shell's innovative **Microgel*** thickener technology is used in several **AEROSHELL** greases to provide greases without the temperature limitations imposed by soap type thickeners. **Microgel** thickened greases also exhibit excellent load carrying ability and maintain consistency with variations in temperature. These factors help to make **Microgel** greases particularly suitable for a range of multi-purpose applications commonly found on aircraft. The multi-purpose features of many of the **AEROSHELL** greases enable users to lubricate their aircraft with fewer greases thus reducing inventory costs and minimizing the risk of misapplication of the wrong grease.

APPROVALS

AEROSHELL Grease 5	MIL-G-3545 (obsolete)
AEROSHELL Grease 6	MIL-G-24139
AEROSHELL Grease 7	MIL-PRF-23827
AEROSHELL Grease 14	MIL-G-25537
AEROSHELL Grease 17	MIL-G-21164
AEROSHELL Grease 22	MIL-PRF-81322F
AEROSHELL Grease 33	MIL-PRF-23827 ,BMS 3-33
AEROSHELL Grease 33MS	MIL-G-21164D

TYPICAL PROPERTIES

PROPERTIES	Aeroshell G rease 5	Aeroshell G rease 6	Aeroshell Grease 7	Aeroshell G rease 14	Aeroshell G rease 17	Aeroshell G rease 22	Aeroshell Grease 33	Aeroshell Grease 33MS	
PRODUCT CODE	519-005	519-006	519-010	519-015	519-025	519-035	519-033	519-037	ASTM METHOD
Colour	Amber	Brown	Buff	Tan	Dark Gray	Tan	Green	Dark Gray	Visual
Thickener	Microgel	Microgel	Microgel	Calcium	Microgel	Microgel	Lithium	Lithium Complex	Spec
Dropping Point, °C	+215	+215	+260	+148	+260	+260	+250	+234	D 2265
Penetration @ 25 °C									
Unworked	281	287	283	267	287	271	290	288	D 217
Worked	284	300	296	273	295	275	297	281	D 217
Useful Temp. Range, °C	-23 to +177	-40 to +121	-73 to +149	-54 to +93	-73 to+149	-65 to +204	-73 to +121	-73 to +121	Est.
Water Resistance, loss % m	0.5	2.0	0.8	7.2	1.0	0.5	<6	3.39	D 1264
Bomb Oxidation @ 98.9 °C									
Press. Drop @ 100 hr, kPa	41	62	62	21	55	28	3	10.3	D 942
Press. Drop @ 500 hr, kPa	103	103	96	41	103	69	34	34.5	D 942
Mean Hertz Load, kg	37	33	60	-	-	45	60	57.49	D 2596
Base Oil Type	Mineral	Mineral	Synthetic	Mineral	Synthetic	Synthetic	Synthetic	Synthetic	Spec
Oil Viscosity @ 98.9 °C	31.8	5.5	3.1	3.1	3.1	5.8	3.4	3.4	D 445

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Need more product information? Please the [Shell Customer Service Centre](#) at 1-800-661-1600
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MSDS requests? Please call 1-800-661-1600 or fax your request to (403) 691-3997

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