

Shell Aviation

PRODUCT SPECIFICATION GUIDE

AeroShell

SEPTEMBER 2016



AeroShell product	US specifications	British specifications	NATO code	Joint service designation	Product and application	Remarks
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PISTON ENGINE OILS

AeroShell Oil 65	SAE J-1966 Grade SAE 30	–	O-113 (obsolete)	–	Straight mineral (break-in) piston engine oil	Available in the USA only
AeroShell Oil 80	SAE J-1966 Grade SAE 40	SAE J-1966 Grade SAE 40	O-115 (obsolete)	OM-170	Straight mineral (break-in) piston engine oil	–
AeroShell Oil 100	SAE J-1966 Grade SAE 50	SAE J-1966 Grade SAE 50	O-117 (obsolete)	OM-270	Straight mineral (break-in) piston engine oil	–
AeroShell Oil 120	SAE J-1966 Grade SAE 60	SAE J-1966 Grade SAE 60	O-128 (obsolete)	OM-370	Straight mineral (break-in) piston engine oil	–
AeroShell Oil W80	SAE J-1899 Grade SAE 40	SAE J-1899 Grade SAE 40	O-123 (obsolete)	OMD-160	Ashless dispersant, mineral single-grade piston engine oil	–
AeroShell Oil W100	SAE J-1899 Grade SAE 50	SAE J-1899 Grade SAE 50	O-125 (obsolete)	OMD-250	Ashless dispersant, mineral single-grade piston engine oil	–
AeroShell Oil W80 Plus	SAE J-1899 Grade SAE 40	–	–	–	Ashless dispersant, premium mineral single-grade piston engine oil	Approved for Lycoming SB 446E and FAA AD 80-04-03R2
AeroShell Oil W100 Plus	SAE J-1899 Grade SAE 50	–	–	–	Ashless dispersant, premium mineral single-grade piston engine oil	Approved for Lycoming SB 446E and FAA AD 80-04-03R2
AeroShell Oil W120	SAE J-1899 Grade SAE 60	SAE J-1899 Grade SAE 60	O-128 (obsolete)	OMD-370	Ashless dispersant, mineral single grade-piston engine oil	–
AeroShell Oil W 15W-50	SAE J-1899 Grade Multigrade	SAE J-1899 Grade Multigrade Multigrade SAE 15W-50	O-162 (obsolete)	OMD-162	Ashless dispersant, semi-synthetic multigrade piston engine oil	Approved for Lycoming SB 446E and FAA AD 80-04-03R2.
AeroShell Sport Plus 4	Rotax RON 424	–	–	–	Dedicated aviation oil for four-stroke light sport and microlight engines. Recommended by Rotax	Fully approved to Rotax specification RON 424 for all ROTAX® 912 and 914 series engines, Rotax Service Instruction for Suitable Operating Fluids SI-912/SI-912i/SI-914. Do not use in engines designed to use SAE J-1899 or 1966
AeroShell Oil Diesel Ultra	ACEA A3/B4 and API SL/CF*	–	–	–	Fully synthetic dedicated diesel-engine aviation oil	Approved for former Thielert/Centurion current Continental Diesel 1.7 and 2.0, Austro Engine AE300 and SMA SR305-230E engines Meets automotive specifications ACEA A3/B4 and API SL/CF (aviation specifications are yet to be defined)

TURBINE ENGINE OILS

AeroShell Turbine Oil 2	MIL-PRF-6081E Grade 1010	–	O-133	OM-10 (obsolete)	Mineral 2 mm ² /s fuel system inhibiting oil	–
AeroShell Turbine Oil 3 ASF 1	–	DEF STAN 91-99	O-135	OM-11	Mineral 3 mm ² /s fuel system inhibiting oil. Equivalent to and replaces ASF 1	–
AeroShell Turbine Oil 308	MIL-PRF-7808L Grade 3	–	O-148	OX-9	Synthetic ester aviation turbine oil	–
AeroShell Turbine Oil 390	–	DEF STAN 91-94	–	OX-7	Synthetic diester aviation turbine oil	–
AeroShell Turbine Oil 500	MIL-PRF-23699G Grade STD SAE AS5780B Grade SPC	DEF STAN 91-101 Grade OX-27	O-156	OX-27	Standard grade, synthetic ester. Aviation turbine oil, 5 cSt viscosity	–
AeroShell Turbine Oil 555	DOD-PRF-85734A	DEF STAN 91-100	O-160	OX-26	Synthetic ester oil for engines and helicopter transmissions. High load-carrying ability, 5 cSt viscosity	–
AeroShell Turbine Oil 560	MIL-PRF-23699G Grade HTS SAE AS5780B Grade SPC	DEF STAN 91-100*	O-154	OX-27	High thermal stability synthetic ester aviation turbine oil, 5 cSt viscosity	–
AeroShell Turbine Oil 750	–	DEF STAN 91-98	O-149	OX-38	Synthetic ester aviation turbine engine oil 7.5 cSt viscosity	–
AeroShell Ascender	MIL-PRF-23699G Grade HTS SAE AS5780 Grade HPC	–	O-154	–	High-performance, low-coking, 5 cSt viscosity, synthetic hindered ester delivering high thermal stability with excellent elastomer compatibility	–

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AVIATION GREASES

AeroShell Grease 5	MIL-G-3545C (obsolete)	DTD.878A (obsolete)*	G-359 (obsolete)	XG-277 (obsolete)	High-temperature Microgel® wheel-bearing and engine-accessory grease	DTD transferred to DEF STAN 91-52, NATO XG-293
AeroShell Grease 6	MIL-PRF-24139A MIL-G-7711A (obsolete)	DEF STAN 91-12 (obsolete)	G-382	XG-271 (obsolete)	General purpose Microgel airframe grease	Still available for civil market meeting, move to ASG 33 obsolete US and UK specifications
AeroShell Grease 7	MIL-PRF-23827C (Type II)	–	–	–	Multipurpose synthetic ester Microgel airframe grease	–
AeroShell Grease 14	MIL-G-25537C	DEF STAN 91-51	G-366	XG-284	Multipurpose mineral oil helicopter grease	–
AeroShell Grease 22	MIL-PRF-81322G NLGI Grade 2 DOD-G-24508A	DEF STAN 91-52	G-395	XG-293	General purpose, versatile, synthetic hydrocarbon, Microgel aircraft grease	–
AeroShell Grease 33	MIL-PRF-23827C (Type I) SAE AMS 3052**	DEF STAN 91-53	G-354	XG-287	Universal lithium complex airframe grease with a synthetic base oil	Approved to Boeing specification BMS 3-33B. Aviation industry moving to lithium complex grease. Approved to Airbus specification AIMS 09-06-002
AeroShell Grease 64 (formerly AeroShell 33MS)	MIL-G-21164D	DEF STAN 91-57	G-353	XG-276	Extreme-pressure, synthetic hydrocarbon, lithium complex, airframe grease	Possesses extreme-pressure characteristics provided by 5% molybdenum disulphide
AeroShell Grease 58	SAE AMS 3058**	–	–	–	New generation of lithium complex grease for aircraft wheel bearings	Will become the civil industry standard wheel bearing grease

HYDRAULIC FLUIDS

AeroShell Fluid 31	MIL-PRF-83282D	–	H-537	OX-19	Super-clean, fire-resistant, synthetic hydrocarbon hydraulic fluid	PAO base
AeroShell Fluid 41	MIL-PRF-5606H	DEF STAN 91-48	H-515	OM-15	Super-clean, mineral hydraulic fluid	–
AeroShell Fluid 4	MIL-H-5606A* (obsolete)	DEF STAN 91-48* Grade Normal	H-520	OM-18	Mineral hydraulic oil with very good low-temperature characteristics	Only available in Americas
AeroShell Fluid 61	MIL-PRF-46170E (Type I)	–	H-544	–	Super-clean, preservative, synthetic hydrocarbon hydraulic fluid	Type I is undyed (Type II is dyed red)
AeroShell Fluid 71	MIL-PRF-6083G	DEF STAN 80-142	C-635	PX-26*	Super-clean, preservative mineral hydraulic fluid	–
AeroShell SSF	–	–	–	–	Extreme-pressure preservative mineral hydraulic landing gear fluid	Qualified to Boeing BMS 3-32 Type 1
AeroShell LGF	–	–	–	–	Extreme-pressure operational mineral hydraulic landing gear fluid	Qualified to Boeing BMS 3-32 Type 2

SPECIALIST FLUIDS

AeroShell Fluid 2XN	MIL-C-6529C Type II	DTD.900/4913A (obsolete)	C-608	ZX-21 (obsolete)	Engine preservative mineral concentrate	Ashless anti-corrosion additives for PEO
AeroShell Fluid 3	MIL-PRF-7870E	DEF STAN 91-47	O-142	OM-12	General-purpose low-temperature mineral lubricating oil	–
AeroShell Fluid 12	MIL-PRF-6085E	DEF STAN 91-49*	O-147	OX-14*	Low-temperature, synthetic ester instrument lubricating oil	–
AeroShell Fluid 5M-A	MIL-PRF-6086F Medium Grade	DEF STAN 91-112 Medium Grade	O-155	OEP-70	Medium-viscosity, extreme-pressure mineral gearbox oil	–
AeroShell Fluid S.8350	–	DTD.900/4981A (obsolete)	–	OEP-215*	Extreme-pressure mineral helicopter gearbox oil	Used in Lynx and Wildcat MRGB
AeroShell Calibrating Fluid 2	MIL-PRF-7024F Type II	–	–	–	Special-run Stoddard solvent calibrating fluid for fuel systems	–
AeroShell Compound 07	–	DTD.406B	S-745	AL-5	Aircraft deicing fluid for in-flight systems and on runway	–
AeroShell Fluid 602	MIL-PRF-87252D	–	S-1748	–	Synthetic avionic cooling fluid	–

NOTES

* AeroShell grade meets the requirements of the listed specification but is not necessarily fully approved to that specification

** New specifications held by SAE International