## **Shell Aviation**

## **PRODUCT SPECIFICATION GUIDE**



AeroShell JANUARY 2021

AeroShell Grade	Specifications	NATO code	Joint Service Designation	Product Description and Application	Remarks			
PISTON ENGINE OILS								
AeroShell Oil 65	SAE J1966 Grade 30	O-113 (obsolete)	OM-107 (obsolete)	Straight mineral (break-in) piston engine oil	Available in the Americas only. Product discontinued in Dec 2020.			
AeroShell Oil 80	SAE J1966 Grade 40	O-115 (obsolete)	OM-170	Straight mineral (break-in) piston engine oil	-			
AeroShell Oil 100	SAE J1966 Grade 50	O-117 (obsolete)	OM-270 (obsolete)	Straight mineral (break-in) piston engine oil	-			
AeroShell Oil 120	SAE J1966 Grade 60	O-128 (obsolete)	OM-370 (obsolete)	Straight mineral (break-in) piston engine oil	-			
AeroShell Oil W80	SAE J1899 Grade 40	O-123 (obsolete)	OMD-160	Ashless dispersant, mineral single-grade piston engine oil	-			
AeroShell Oil W100	SAE J1899 Grade 50	O-125 (obsolete)	OMD-250	Ashless dispersant, mineral single-grade piston engine oil	-			
AeroShell Oil W80 Plus	SAE J1899 Grade 40	-	-	Ashless dispersant, premium mineral single- grade piston engine oil	Approved for Lycoming SB 446E & 471B, AMOC FAA AD 80-04-03R2 p.1b			
AeroShell Oil W100 Plus	SAE J1899 Grade 50	-	-	Ashless dispersant, premium mineral single- grade piston engine oil	Approved for Lycoming SB 446E & 471B, AMOC FAA AD 80-04-03R2 p.1b			
AeroShell Oil W120	SAE J1899 Grade 60	O-128 (obsolete)	OMD-370	Ashless dispersant, mineral single grade- piston engine oil	-			
AeroShell Oil W15W-50	SAE J1899 Grade Multigrade	O-162 (obsolete)	OMD-162	Ashless dispersant, semi-synthetic multigrade piston engine oil	Approved for Lycoming SB 446E & 471B, AMOC FAA AD 80-04-03R2 p.1b			
AeroShell Oil Sport Plus 4	API SL* Rotax RON 424	-	-	Dedicated aviation oil for four-stroke light sport and microlight engines.  Recommended by Rotax Viscosity grade 10W-40.	Rotax Service Instruction for Suitable Operating Fluids SI-912/SI-912i/SI-914/SI-915. Do not use in engines designed to use SAE J1899 or J1966.			
AeroShell Oil Diesel Ultra	ACEA A3/B4* API SL/CF* Mercedes Benz MB229.5 (No aviation specifications yet defined)	-	-	Fully synthetic dedicated diesel-engine aviation oil. Viscosity grade 5W-30.	Approved for former Thielert/Centurion current Continental Diesel 1.7 and 2.0, Austro Engine AE300 and SMA SR305- 230E engines			
TURBINE ENGINE OILS								
AeroShell Turbine Oil 2	MIL-PRF-6081E Grade 1010 & 1010N	O-133	OM-10 (obsolete)	2 mm²/s mineral fuel system inhibiting oil.	-			
AeroShell Turbine Oil 3	DEF STAN 91-099	O-135	OM-11	3 mm²/s mineral fuel system inhibiting oil. Equivalent to and replaces AeroShell Fluid 1.	-			
AeroShell Turbine Oil 308	MIL-PRF-7808L Grade 3	O-148	OX-9	3 mm²/s synthetic ester aviation turbine oil.	-			
AeroShell Turbine Oil 390	DEF STAN 91-094	-	OX-7	3 mm <sup>2</sup> /s synthetic diester aviation turbine oil.	-			
AeroShell Turbine Oil 500	MIL-PRF-23699G Grade STD SAE AS5780D Grade SPC DEF STAN 91-101 Grade OX-27	O-156	OX-27	Standard grade 5 mm <sup>2</sup> /s synthetic ester aviation turbine oil.	-			
AeroShell Turbine Oil 555	DOD-PRF-85734A DEF STAN 91-100*	O-160	OX-26	5 mm <sup>2</sup> /s synthetic ester oil for engines and helicopter transmissions.	-			
AeroShell Turbine Oil 560	MILPRF-23699G Grade HTS SAE AS5780D Grade SPC DEF STAN 91-101 Grade OX-27*	O-154	OX-27	High thermal stability 5 mm²/s synthetic ester aviation turbine oil.	-			
AeroShell Turbine Oil 750	DEF STAN 91-098	O-149	OX-38	7.5 mm²/s synthetic ester aviation turbine engine oil.	-			
AeroShell Ascender	MILPRF-23699G Grade HTS SAE AS5780D Grade HPC DEF STAN 91-101 Grade OX-27*	O-154	OX-27	High performance capability 5 mm <sup>2</sup> /s synthetic hindered ester aviation turbine oil.	-			

## NOTE

<sup>\*</sup>AeroShell grade meets the requirements of the listed specification but is not necessarily fully approved to that specification.

Unit of measure for viscosities are shown as mm²/s, (millimetres squared per second). 1 mm²/s = 1 centiStoke (cSt)

AeroShell Grade	Specifications	NATO code	Joint Service Designation	Product Description and Application	Remarks			
AVIATION GREASES								
AeroShell Grease 5	MIL-G-3545C* (obsolete) DTD.878A* (obsolete)	G-359 (obsolete)	XG-277 (obsolete)	Mineral Microgel grease for use in wheel-bearings and engine accessories	Available in the Americas only. DTD transferred to DEF STAN 91-52, NATO XG-293			
AeroShell Grease 6	MIL-PRF-24139A DEF STAN 91-028* MIL-G-7711A* (obsolete) DEF STAN 91-012* (obsolete)	G-450 (obsolete) G-382	XG-271 (obsolete) XG-274 (obsolete)	General purpose mineral Microgel airframe grease for use in bearings and gearboxes	-			
AeroShell Grease 7	MIL-PRF-23827C (Type II)	-	-	Multipurpose synthetic ester Microgel airframe grease	-			
AeroShell Grease 14	MIL-G-25537C DEF STAN 91-051	G-366	XG-284	Multipurpose helicopter grease, mineral base oil thickened with calcium soap	-			
AeroShell Grease 22	MIL-PRF-81322G DOD-G-24508A DEF STAN 91-052*	G-395	XG-293	General purpose, synthetic hydrocarbon Microgel aircraft grease	-			
AeroShell Grease 33	MIL-PRF-23827C (Type I) DEF STAN 91-053* SAE AMS3052A BMS 3-33C AIMS 09-06-002	G-354	-	Multipurpose lithium complex airframe grease with synthetic base oil	-			
AeroShell Grease 64	MIL-G-21164D DEF STAN 91-057	G-353	XG-276	Synthetic hydrocarbon lithium complex airframe grease Possesses extreme-pressure characteristics provided by 5% molybdenum disulphide	-			
AeroShell Grease 58	SAE AMS3058 AIMS 09-06-003	-	-	New generation of lithium complex grease for aircraft wheel bearings	-			
HYDRAULIC FLUIDS								
AeroShell Fluid 4	MIL-H-5606A* (obsolete) DEF STAN 91-048 Grade Normal*	-	-	Mineral hydraulic oil with very good low- temperature characteristics, dyed red	Available in the Americas only. Product discontinued in Dec 2020.			
AeroShell Fluid 31	MIL-PRF-83282D	H-537	OX-19	Super-clean, fire-resistant, synthetic hydrocarbon PAO based hydraulic fluid, dyed red	-			
AeroShell Fluid 41	MIL-PRF-5606J DEF STAN 91-048 Grade Superclean	H-515	OM-15	Super-clean, mineral hydraulic fluid, dyed red	-			
AeroShell Fluid 61	MIL-PRF-46170E (Type I)	H-544	-	Super-clean, preservative, synthetic hydrocarbon hydraulic fluid, undyed	Type I is undyed (Type II is dyed red)			
AeroShell LGF	BMS 3-32C (Type II)	-	-	Extreme-pressure operational mineral hydraulic landing gear fluid, dyed yellow	-			
SPECIALIST FLUIDS								
AeroShell Fluid 2XN	MIL-C-6529C Type I	C- 608	ZX-21 (obsolete)	Engine preservative mineral concentrate with ashless anti-corrosion additives for PEO.	Product discontinued in Dec 2020.			
AeroShell Fluid 3	MIL-PRF-7870E DEF STAN 91-047* (obsolete)	O-142	OM-12 (obsolete)	General-purpose low-temperature mineral lubricating oil	-			
AeroShell Fluid 5M-A	MIL-PRF-6086F Grade Medium DEF STAN 91-112 Grade Medium	O-155	OEP-70	Medium-viscosity, extreme-pressure mineral gearbox oil	Product discontinued in Dec 2020.			
AeroShell Fluid 12	MIL-PRF-6085E DEF STAN 91-049*	O-147	OX-14*	Low-temperature, synthetic ester instrument lubricating oil	-			
AeroShell Fluid 602	MIL-PRF-87252E	S-1748	-	Synthetic avionic cooling fluid	Product discontinued in Dec 2020.			
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* (obsolete)	S-745	AL-5	Aircraft de-icing fluid for in-flight systems and on runway	-			
AeroShell Smoke Oil		-	-	Hydrocarbon fluid based on Shell Gas-to-Liquid Technology Used in both piston engine and jet engine powered aviation aerobatic flight displays	-			

## NOTES