

QUALITY PERFORMS.



Royco® aerospace and defense fluids
Formulated solutions for critical applications



QUALITY WORKS.

LANXESS
Energizing Chemistry

ROYCO® AEROSPACE AND DEFENSE FLUIDS



At the dawn of the jet age, our **Royco®** brand established itself as the preeminent lubricant for aviation. Ever since, **Royco®** fluids have been characterized by innovative technology for the most critical applications. From the bitter cold of the poles to the extreme heat of the world's deserts, these engineered fluids deliver high performance for the most advanced defense and commercial aerospace requirements. You can rely on the **Royco®** brand for your aerospace and defense fluids needs.

Advanced technology for:

- Fire-resistant hydraulic fluids
- Mineral-oil based hydraulic fluids
- Performance compounds and greases
- Specialty application & performance fluids
- Turbine & drivetrain fluids
- Weapons cleaner/preservative lubes

Royco® aerospace and defense fluids have set quality and technology standards since the 1940's that you can still rely on today.

AS9100 / ISO 9001:2015 certified



Hydraulic fluids

Royco® hydraulic fluids are engineered for the most rigorous of applications. With these credentials, you can be sure that Royco® hydraulic fluids will deliver for your aerospace and industrial hydraulic needs.* These fluids are additized to provide optimal anti-wear, corrosion, demulsibility, and oxidation

performance across broad operating temperature ranges. For added reliability, many of the Royco® hydraulic fluids are produced to meet or exceed the military's cleanliness requirements for hydraulic fluids.

Product	Specifications*	ISO grade	NATO designation	Description
Royco® SSF	BMS 3-32 TYPE 1	–	–	Shock strut fluid
Royco® LGF	BMS 3-32 TYPE 2	–	–	Landing gear fluid
Royco® 756	MIL-PRF-5606	14	H-515	"Red Oil" – hydraulic fluid
Royco® 756A	–	14	–	Hydraulic fluid that meets obsolete MIL-H-5606(A)
Royco® 757	–	4	–	Hydraulic and preservative fluid
Royco® 783	MIL-PRF-6083	14	C-635	Land systems hydraulic and preservative fluid
Royco® 770	MIL-PRF-46170	16	H-544	Fire-resistant, synthetic, rust-inhibited hydraulic fluid
Royco® 782	MIL-PRF-83282	14	H-537	Fire-resistant, synthetic hydraulic fluid

* Where suitable as defined by the application and hardware requirements.

Weapons cleaner & preservative lubes

Modern firearms have come a long way. The world's militaries demand that their firearms work every time and all the time. The Royco® weapons cleaner & preservative lubes are not simple "gun oils." These fluids are complex formulations using contemporary technology that remove fouling, prevent

corrosion, and provide long-lasting lubrication for weapon readiness. These characteristics are proven for use in both small and large caliber weapons – even after heavy firing and in the harshest of environments.

Product	Specifications*	NATO designation	Description
Royco® 634E	MIL-PRF-63460 TYPE A	S-758	Advanced weapons cleaner, lube & preservative

* Unless otherwise stated, product meets latest revision of specification.

Turbine & drivetrain fluids

Aerospace turbine engines have a life critical role. Fulfilling this responsibility and building on decades of technical where-withal and dedicated manufacturing, Royco® turbine fluids are developed to deliver performance to this sophisticated

industry. You can rely on Royco® turbine fluids, for the most advanced fighter jets to commercial airliners and helicopter drivetrains.

Product	Specifications*	NATO designation	Description
Royco® 481	MIL-PRF-6081 GRADE 1010, 1010N	O-133	Mineral oil turbine engine oil
Royco® 500	MIL-PRF-23699 STD	O-156	Synthetic turbine engine oil
Royco® 555	DOD-PRF-85734	O-160	Turbine engine & helicopter transmission oil
Royco® 560	MIL-PRF-23699 HTS	O-154	High temperature stability turbine engine oil
Royco® 808	MIL-PRF-7808 GRADE 3	O-148	Low viscosity turbine engine oil
Royco® 899	MIL-PRF-23699 CI	O-152, O-156	Corrosion inhibition turbine engine oil

Performance compounds and greases

Royco® performance compounds and greases are semi-solid blends of the latest technology for additives, base fluids and modern thickeners. The delicate balance of these components and the artful science that goes into these mixtures should only be trusted to experienced formulators of Royco® performance compounds and greases. These systems are

designed for the most demanding lubrication requirements. From severely loaded gears and extreme pressure sliding surfaces, while exposed to high altitude, corrosive and/or marine environments, Royco® performance compounds and greases deliver the required performance.

Product	Specifications*	NATO designation	Description
Royco® 1MS	MIL-PRF-83483	–	Anti-seize thread and severe duty/heavy load compound
Royco® 11MS	–	–	Severe duty general purpose aircraft grease that meets obsolete MIL-G-7711A
Royco® 22CF	MIL-PRF-81322	G-395	A chromate-free, wide operating temperature, multi-function & general purpose grease
Royco® 22MS	MIL-G-81827	–	Wide operating temperature, high load synthetic grease
Royco® 27	MIL-PRF-23827 TYPE 1	G-354	Multi-purpose instrument & airframe grease
Royco® 43	SAE-AMS-4343	G-392	Lithium grease
Royco® 44	SAE-AMS-2518	S-720	Graphite anti-seize compound
Royco® 49	MIL-DTL-23549	–	Extreme pressure grease with MoS ₂
Royco® 64	MIL-G-21164	G-353	Advanced MoS ₂ synthetic grease
Royco® 81MS	MIL-DTL-25681	S-1735	High-thermal and oxidatively stable semi-fluid MoS ₂ and silicone oil

* Unless otherwise stated, product meets latest revision of specification.

Specialty application and performance fluids

The Royco® specialty application fluids line provides the most advanced technology and confidence to today's multi-faceted aerospace environment. From coolant to dielectric protection through to gear and sliding surface lubrication requirements, Royco® specialty application fluids are the solution.

Product	Specifications*	NATO designation	Description
Royco® 308CA	MIL-PRF-32033 TYPE 1 CLASS 1	O-190	A general purpose, lubricating, and preservative/water-displacing oil
Royco® 363	MIL-PRF-7870	O-142	Low temperature, general purpose & instrument lube
Royco® 482	MIL-C-6529 TYPE 2	C-609	Aircraft piston engine & parts preservative fluid
Royco® 483	MIL-C-6529 TYPE 3	C-610	Aircraft turbojet engine & parts preservative fluid
Royco® 581	MIL-C-6529 TYPE 1	C-608	Preservative concentrate for aircraft engines
Royco® 586M	MIL-PRF-6086 GRADE M	O-155	High temperature load carrying lube
Royco® 602	MIL-PRF-87252	S-1748	Hydrolytically stable coolant & dielectric lubricating fluid
Royco® 634E	MIL-PRF-63460 TYPE A	S-758	Advanced multi-purpose lubricant
Royco® 885	MIL-PRF-6085	O-147	Low volatility instrument & general lubricating fluid
Royco® HF-825	–	–	Assembly grease
Royco® 950	MIL-PRF-7024 TYPE 2	–	Fuel system calibration fluid

Know your MIL-SPEC... Find a Royco® fluid

Specification	Fluid
BMS 3-32 TYPE 1	Royco® SSF
BMS 3-32 TYPE 2	Royco® LGF
DOD-L-25681	Royco® 81MS
DOD-PRF-85734	Royco® 555
MIL-C-6529 TYPE 1	Royco® 581
MIL-C-6529 TYPE 2	Royco® 482
MIL-C-6529 TYPE 3	Royco® 483
MIL-DTL-23549	Royco® 49
MIL-DTL-25681	Royco® 81MS
MIL-G-21164	Royco® 64
MIL-G-7711A (obsolete)	Royco® 11MS
MIL-G-81827	Royco® 22MS
MIL-H-5606A	Royco® 756A
MIL-PRF-23699 CI	Royco® 899
MIL-PRF-23699 HTS	Royco® 560
MIL-PRF-23699 STD	Royco® 500
MIL-PRF-23827 TYPE 1	Royco® 27

Specification	Fluid
MIL-PRF-32033 TYPE1-CLASS1	Royco® 308CA
MIL-PRF-46170	Royco® 770
MIL-PRF-5606	Royco® 756
MIL-PRF-6081 GRADE 1010, 1010N	Royco® 481
MIL-PRF-6083	Royco® 783
MIL-PRF-6085	Royco® 885
MIL-PRF-6086 GRADE M	Royco® 586M
MIL-PRF-63460 TYPE A	Royco® 634E
MIL-PRF-7024 TYPE 2	Royco® 950
MIL-PRF-7808 GRADE 3	Royco® 808
MIL-PRF-7870	Royco® 363
MIL-PRF-81322	Royco® 22CF
MIL-PRF-83282	Royco® 782
MIL-PRF-83483	Royco® 1MS
MIL-PRF-87252	Royco® 602
SAE-AMS-2518	Royco® 44
SAE-AMS-4343	Royco® 43





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