FLUORINATED OILS

The **LUBRILOG LY F** oils range is made from colourless, odourless and non-toxic Perfluorinated Polymers. These polymers are chemically neutral and show very good thermal stability along with excellent tribological performances. They are offered in a wide range of viscosities and offer superior quality and performance compared to other synthetic oils no matter the substrate or the environment. They are non-miscible with other lubricants.

Products	Viscosity 40° C mm^2/s	Viscosity index	Mass volume (20° C)	Temperature range °C		% Evaporation (after 22h)	Advantages
				Mini	Maxi		
LUBRILOG LY F 15	15	60	1,87	-60	120	10 (120°C)	• Chemically inert • Totally non-flammable • Excellent coefficient of friction • Excellent anti-seizing properties • Low vapor tension • Total compatibility with plastics and elastomers • Very long life time of the lubricant's film
LUBRILOG LY F 35	35	80	1,88	-45	150	15 (150°C)	
LUBRILOG LY F 90	90	125	1,90	-40	200	5 (200°C)	
LUBRILOG LY F 160	160	130	1,91	-40	220	3 (200°C)	
LUBRILOG LY F 220	220	130	1,91	-30	250	1 (200°C)	
LUBRILOG LY F 270 HT	270	130	1,91	-35	260	< 0,6 (200°C)	
LUBRILOG LY F 510 HT	510	136	1,92	-20	300	< 0,12 (200°C)	

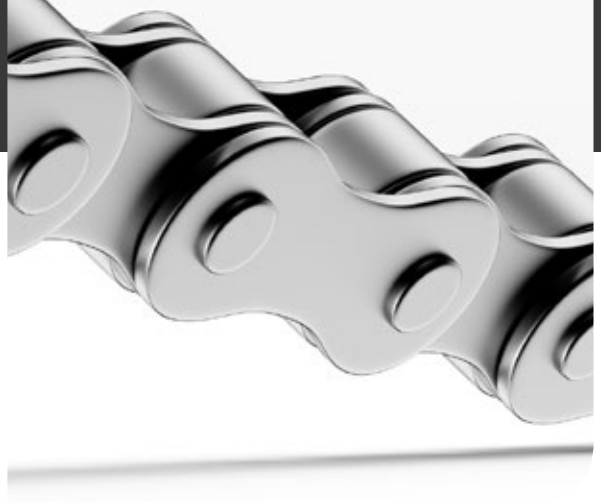
FLUOSTAR CHAIN

SPECIFIC FLUORINATED OILS

The **FLUOSTAR® CHAIN** oils range are made from perfluorinated polymers that show very good thermal stability. These oils evaporate very slowly and leave no residue even at very high temperatures. They are mainly used for chain lubrication of ovens when cleanliness is critical. These oils provide efficient protection against corrosion.

Products	Viscosity 40° C mm²/s	Viscosity index	Mass volume (20° C)	Temperature range °C		% Evaporation (after 22H)	Advantages
				Mini	Maxi		
FLUOSTAR CHAIN HD*	32	-	1,88	-55	300	< 0,5 % (200°C)	• Very low evaporation • Totally non-flammable • Excellent friction coefficient • Excellent anti-seizing properties • Improve the lifetime of the chains. • Leave no residue • Very low consumption
FLUOSTAR CHAIN 320	320	135	1,92	-25	300	< 0,5 % (200°C)	
FLUOCOR S*	280	-	1,75	-40	250	< 1 % (200°C)	

* Contains a vector solvent + UV tracer



SYNTHETIC OILS FOR HIGH TEMPERATURE CHAINS

The oils from the range **ESTAR®** are made from synthetic (special ester) base oils. These oils are very resistant to heat and evaporation even in presence of steam. **ESTAR®** oils incorporate special blend of additives which generate no residue at high temperature up to 250°C.

Products	Viscosity 40° C mm²/s	Viscosity index	Mass volume (20° C)	Temperature range °C		Flash point °C	% Volatility (204°C/6,5h)	Advantages
				Mini	Maxi			
ESTAR 50 SUPER	50	125	0,97	-40	290	301	1,7	• Excellent protection against corrosion • High thermal stability • Very low residue content • Resistance to washing • Very high flash point
ESTAR 125 HT	125	120	0,97	-40	280	>285	2,1	
ESTAR 125 SUPER PLUS	125	120	0,96	-40	290	>290	0,4	
ESTAR 250 SUPER	250	135	0,94	-40	280	>285	1,7	
ESTAR 250 SUPER PLUS	255	125	0,95	-40	290	>290	0,5	
CHAIN HT 220	200	135	0,94	-40	280	>275	2,0	
ESTAR CHAIN OIL 120	120	125	0,96	-30	280	285	1,9	
ESTAR BAND OIL	260	260	0,95	-35	280	>285	1,6	

ADHESIVE AND HYDROPHOBIC OILS

The oils from the **VISCOL®** range are made from selected mineral base oils.
They present exceptional adhesive properties thanks to their additives' stringiness.
These oils protect efficiently against corrosion even in saline environment or in presence of steam up to 150°C.
They also show excellent antiwear extreme pressure properties for all types of chains.

Products	Viscosity 40° C mm^2/s	Viscosity index	Density (20° C)	Temperature range °C		Advantages
				Mini	Maxi	
VISCOL 68 WR	68	103	0,88	-25	150	• Excellent protection against wear and corrosion. • Water repellent • Highly adhesive. • Resistance to washing out. • Non-toxic. N17 • Paint compatible.
VISCOL 150 WR	150	95	0,90	-10	150	
VISCOL 460 WR	460	125	0,89	-5	150	
VISCOL 4200	4200	180	0,89	-5	160	
VISCOL 4200/75 S	4200	180	0,89	-5	160	

GEAR FLUID®

GEAR FLUID® is a range of high viscosity oils for the lubrication of heavy duty open gear drives used in the industries such as cement,ore,steel,thermal stations(coal lines), mineral processing, fertilizers, chemical (lateral furnace transmissions, grinders, dryers, coolers, mixers, rotary kilns and ball mills in general.

Products	Viscosity 40° C mm^2/s	Viscosity index	Density (20° C)	Temperature range °C		Wear test (4 balls)	Advantages
				Mini	Maxi		
GEAR FLUID 180	4600	135	0,92	-5	100	> 980	• Exceptional resistance to seizing • Excellent extreme pressure resistance and antiwear properties • Ideal for heavy pay loads and slow speeds • Contains no heavy metals or bitume
GEAR FLUID 550	17000	180	0,92	0	120	> 980	
GEAR FLUID 1000	25000	230	0,92	0	120	> 980	
GEAR FLUID 550 D	17000	180	0,92	-10	120	> 980	
GEAR FLUID 1000 D	25000	230	0,92	0	120	> 980	
GEAR FLUID R	520	100	0,92	-15	100	> 980	

LUBRILOG PG OIL

SYNTHETIC OILS FOR OPEN GEAR DRIVES AND HIGH EFFICIENCY BEARINGS

Eloborated from polyglycol, these oils are essential for the lubrication of torque open gear drives, worm gears or other mechanisms where friction is a critical parameter. They can be used with some elastomers. These oils are not compatible with mineral oils and single-component paints.

Products	Viscosity 40° C mm^2/s	Viscosity index	Density (20° C)	Temperature range °C		Wear ASTM	Bearing FZG	Advantages
				Mini	Maxi			
LUBRILOG PG OIL 100	100	220	1,05	-40	160	0,30	12	• Absorbs humidity • Very high viscosity index • Excellent coefficient of friction • Excellent anti-seizing properties • Absence of residues at high temperatures • Improved efficiency of open gear drives • Long service life
LUBRILOG PG OIL 150	150	220	1,05	-34	170	0,30	12	
LUBRILOG PG OIL 220	220	230	1,05	-35	170	0,35	12+	
LUBRILOG PG OIL 320	320	240	1,05	-33	170	0,35	12+	
LUBRILOG PG OIL 460	460	250	1,05	-30	180	0,35	12+	
LUBRILOG PG OIL 680	680	260	1,05	-30	180	0,35	13	
LUBRILOG PG OIL 1000	1000	280	1,05	-30	180	0,35	13	

LUBRILOG LY PAO ... AW

HIGH PERFORMANCE SYNTHETIC OILS

Oils from our LUBRILOG LY PAO ... AW range offer a high resistance to both high as well as low temperatures, resistance to heavy loads, offer antiwear and anticorrosion properties. Besides, they remain perfectly compatible with mineral oil based lubricants. These oils offer a very long lifetime for the lubrication of heavy duty gears and bearings.

Products	Viscosity 40° C mm²/s	Viscosity index	Density (20° C)	Temperature range °C		Wear ASTM	Bearing FZG	Advantages
				Mini	Maxi			
LUBRILOG LY PAO 68 AW	68	145	0,84	-55	150	0,3	12	• No heavy metals • High viscosity index • Low friction coefficient • Excellent anti-seizing properties • Suitable for low and high temperatures • High compatibility with plastics and some elastomers
LUBRILOG LY PAO 100 AW	100	145	0,87	-50	150	0,3	12	
LUBRILOG LY PAO 150 AW	150	150	0,86	-45	150	0,3	12	
LUBRILOG LY PAO 220 AW	220	150	0,86	-45	150	0,3	12+	
LUBRILOG LY PAO 320 AW	320	155	0,86	-45	150	0,3	12+	
LUBRILOG LY PAO 460 AW	460	155	0,87	-40	150	0,3	12+	
LUBRILOG LY PAO 680 AW	680	160	0,87	-40	160	0,35	12+	
LUBRILOG LY PAO 1000 AW	1000	160	0,87	-40	160	0,35	13	

LUBRILOG LCC ... M

GENERAL PURPOSE HYDRAULIC TRANSMISSION OIL

The extreme pressure oils from the range LUBRILOG LCC ... M, are incorporated with molybdinum bisulphide (MoS_2) additive. This range of lubricants offer an excellent resistance to shear force and antiwear. They offer a long lasting lubrication for several applications : bearings submitted to heavy loads, chains, open gear drives under the casting, high viscosities, heavy duty open gear drives (lateral command with rotating tube) and low speed bearings.

Products	Viscosity 40° C mm²/s	Viscosity index	Mass volume (20° C)	Temperature range °C		Advantages
				Mini	Maxi	
LUBRILOG L CC 68 M	68	97	0,90	-24	120	• High viscosity index • Contain Molybdinum bisulphide additive • Exceptional resistance to seizing. • Excellent extreme pressure resistance and antiwear properties • Resistance to high temperatures • High performance under heavy loads and low speeds • Contains no bitume
LUBRILOG L CC 100 M	100	97	0,90	-24	120	
LUBRILOG L CC 150 M	150	97	0,90	-24	120	
LUBRILOG L CC 220 M	220	94	0,90	-21	120	
LUBRILOG L CC 320 M	320	98	0,90	-15	120	
LUBRILOG L CC 460 M	460	98	0,90	-12	120	
LUBRILOG L CC 680 M	680	98	0,90	-8	120	
LUBRILOG L CC 1000 M	1000	110	0,90	-3	120	
LUBRILOG L CC 2200 M	2200	99	0,90	0	120	
LUBRILOG L CC 3200 M	3200	107	0,90	+3	120	
LUBRILOG L CC 680 R	680	98	0,93	-8	120	

GENERAL PURPOSE OILS FOR HYDRAULIC TRANSMISSIONS

LUBRILOG L HM is a range of fluids adapted for all hydraulic systems operating under high temperatures and pressures.

Products	Viscosity 40° C mm^2/s	Viscosity	Density (20° C)	Temperature range °C		Advantages
				Mini	Maxi	
LUBRILOG L HM 22	22	107	0,86	-27	120	• Reinforced antiwear protection • Good thermal stability • Good resistance to oxidation • Reduction of residue • Good filtration properties
LUBRILOG L HM 32	32	105	0,87	-24	120	
LUBRILOG L HM 46	46	104	0,88	-30	120	
LUBRILOG L HM 68	68	103	0,88	-27	120	
LUBRILOG L HM 100	100	103	0,89	-24	120	

OILS FOR HYDRAULIC TRANSMISSIONS AND EXTREME TEMPERATURES

LUBRILOG L HV is a range of fluids with high viscosity index for the hydraulic systems operating at low temperatures.

Products	Viscosity 40° C mm²/s	Viscosity index	Density (20° C)	Temperature range °C		Advantages
				Mini	Maxi	
LUBRILOG L HV 15	15	150	0,86	-45	120	• Reinforced antiwear protection and good thermal stability • Good resistance to oxidation and prolonged intervals of oil change • Reduction of residues • Good filtration properties
LUBRILOG L HV 22	22	155	0,87	-43	120	
LUBRILOG L HV 32	32	155	0,87	-42	120	
LUBRILOG L HV 46	46	155	0,87	-42	120	
LUBRILOG L HV 68	68	160	0,88	-36	120	
LUBRILOG L HV 100	100	160	0,89	-33	120	

SILICONE BASED OILS

LUBRILOG LY S is a range of dimethylpolysiloxane type of non-toxic oils. They are characterised by remarkable thermal stability and compatibility with plastics and elastomers.

Products	Viscosity 40° C mm^2/s	Viscosity index	Mass volume (20° C)	Temperature range °C		Advantages
				Mini	Maxi	
LUBRILOG LY S 20	20	290	0,95	-60	180	• Very high viscosity index • Excellent thermal stability
LUBRILOG LY S 50	50	290	0,96	-55	180	
LUBRILOG LY S 100	100	300	0,96	-55	180	
LUBRILOG LY S 150	150	320	0,96	-50	180	
LUBRILOG LY S 250	250	320	0,96	-50	180	
LUBRILOG LY S 350	350	350	0,96	-50	180	
LUBRILOG LY S 500	500	370	0,97	-50	180	
LUBRILOG LY S 1000	1000	400	0,97	-50	180	
LUBRILOG LY S 5000	5000	420	0,97	-49	180	