



PRODUCT CATALOG





Oils

Classic oils

The composition of Moebius classic oils consists of highly refined vegetable oils, special mineral oils and selected additives to increase the life span of the product. Moebius classic oils have excellent lubricity properties resulting in very high friction reduction and increased pressure resistance.

Synthetic oils

Moebius synthetic oils are high quality synthetic lubricants containing ether and alcohol groups with a wide range of possible applications. They do not gum up or age and are highly compatible with all materials. Synthetic oils guarantee excellent adherence and changes in humidity does not affect the coefficient of friction.

SYNT-HP is a group of high pressure oils available in 4 viscosities. They are based on synthetic components and a combination of specially selected high pressure additives. The excellent ageing stability ensures a constant viscosity over a long time. The oils show an outstanding high pressure resistance and an excellent reduction of friction as well as a superior lubricating and adherence capacity. The friction coefficient remains stable at low and high humidity.

Microgliss

Microgliss consists of mineral oils, highly refined vegetable oils and selected additives for anti-wear and anti-corrosion properties.

Silicone oils

Silicone oils have outstanding stability properties, moderate lubrication power and are ideal for assembly and sealing assistance.

Greases

Classic greases

The composition of Moebius classic greases consists of highly refined vegetable oils, special mineral oils or grease and selected additives to increase the life span of the product.

Synthetic greases

The composition of Moebius synthetic greases consists of high quality synthetic lubricants transformed into a grease using a thickening agent.

Silicone greases

Moebius silicone greases have a very high resistance to external aggressions such as water, UV or oxidative stress. They are mostly used for sealing applications.



Epilames

Epilamination is a surface treatment intended to lower the surface tension of the support thus preventing the spreading of liquid lubricants. It provides the highest possible degree of security for mechanical precision instruments. Fixodrop are modern epilames, developed by MOEBIUS, based on fluorinated synthetic resins, diluted in EcoSolv (ES) which meets current ecological standards.

Fixodrop ES/BS (8980/8981/8982)

Fixodrop ES/BS are the standard epilames of our range. Easy to apply, these products have the advantage of being extremely robust and insensitive to the state of the treated surfaces. This product can be applied to all materials and is not very sensitive to pollution of baths and other contaminants that may be present on the surfaces to be treated.

Fixodrop ES/WR-S (7060/7061/7062)

Fixodrop ES/WR-S are the first series of our « Wash Resistance » (WR) epilames that have been specifically developed to improve the washing resistance of standard materials (Steel, Ruby, Copper, etc.). These epilames can be applied to all materials, but they will be the most effective on these standard materials for which they have excellent resistance to washing.

Fixodrop ES/WR-P (7070/7071/7072)

Fixodrop ES/WR-P are the second series of our « Wash Resistance » (WR) epilames that have been specifically developed to improve the washing resistance of special or precious materials (Gold, Rhodium-plated, Nickel, DLC, etc.). These epilams can be applied to all materials, but they will be the most effective on these materials for which they have excellent resistance to washing.

Specialities

Moebius specialties are the test oils to control the quality of the Fixodrop epilame deposited on a surface, as well as vrac for dip lubrication.

More information

On the Moebius website you can find Technical Data Sheets for all of our products.

Storage

We advise keeping Moebius products in their original packaging in a clean and dry place, protected from light, ideally at a temperature of 15 to 26 °C.

After opening we recommend keeping the products for a maximum of 12 months.



CLASSIC OILS



Technical features (indicative values)

Article	Viscosity 20°C (mm ² /sec)	Temperature range in °C	Unctuousness / Lubricity	Viscosity / Texture	Ageing resistance / Stability	Adhesion / Grip	General use
8000	95	-15/+80					Fluid oil, excellent lubricity (unctuousness) and stays well in place. Suitable for applications subject to moderate pressures.
8030	115	-20/+80					Fluid oil with good lubricity. Ideal for mobiles and large parts (pendulum, counter) subject to moderate pressures.
8031	110	-25/+80					Fluid oil, similar to 8030, suitable for low temperature applications (down to -25°C).
8040	150	-27/+80					Fluid oil with good lubricity. Ideal for mobiles and large parts. More viscous than 8030, it will ideally replace it in case of excessive wear.
8141	1250	-4/+100					Viscous oil, excellent lubricity (unctuousness) and stays well in place. Suitable for applications subject to high pressures.



SYNTHETIC OILS



Technical features (indicative values)

Article	Viscosity 20°C (mm ² /sec)	Temperature range in °C	Unctuousness / Lubridity	Viscosity / Texture	Ageing resistance / Stability	Adhesion / Grip	General use
9000	100	-35/+65					Fluid oil developed for quartz movements.
9010	150	-30/+70					Universal fluid thin oil with very good resistance to aging and good resistance to pressure. Also available in blue (9010-B).
9010-FL	150	-30/+70					The addition of a fluorescent tracer makes it possible to visualize the presence of small quantities of oil under UV light.
9014	100	-35/+70					Universal fluid thin oil with a very good resistance to aging whose viscosity is intermediate between 9030 and 9010.
9015	150	-30/+70					Offering good lubricating power and a remarkable adhesion, this oil is ideal for fast mobiles. Especially recommended for the lubrication of plastics.
9020	270	-25/+80					With a higher viscosity than the 9010 oil, it will be better suited to slower mobiles subject to higher pressures. Also available in red (9020-R).
9020-FL	270	-25/+80					The addition of a fluorescent tracer makes it possible to visualize the presence of small quantities of oil under UV light.
9024	260	-25/+80					Offering good lubricating power and a remarkable adhesion, this oil is ideal for mobiles subjected to moderate pressures.
9026	235	-25/+90					The addition of Molybdenum bisulfide (MoS ₂) enhances its lubricity and improves the resistance to pressure.
9027	1050	-7/+80					Offering good lubricating power and a remarkable adhesion, this oil is ideal for mobiles subjected to higher pressures.
9030	60	-40/+60					Developed for low temperature applications, it is a fluid thin oil with excellent lubricity and remarkable adhesion. Also available in green (9030-G).
9030-FL	60	-40/+60					The addition of a fluorescent tracer makes it possible to visualize the presence of small quantities of oil under UV light.
9034	60	-40/+60					Fluid oil developed for low temperature application, especially recommended for the lubrication of plastics.
9040	24	-52/+120					Very fluid universal oil, developed for ultra-low temperature applications.
941	105	-35/+70					Offering an excellent lubricating power and remarkable adhesion, this oil has been specially developed for the lubrication of lifts (escapement).
941-FL	105	-35/+70					The addition of a fluorescent tracer makes it possible to visualize the presence of small quantities of oil under UV light.
9800	220	-30/+120					With a very good viscosity index, this silicone-free lubricant has a fairly stable viscosity even at low temperatures.



SYNTHETIC OILS - SYNT-HP



































Technical features (indicative values)

Article	Viscosity 20°C (mm ² /sec)	Temperature range in °C	Unctuousness / Lubridity	Viscosity / Texture	Ageing resistance / Stability	Adhesion / Grip	General use
9101	500	-30/+100					In the range of 100% synthetic high pressure oils, the HP500 oil, the first in the series, is the least viscous. Also available colorless (9101-SC).
9101-FL	500	-30/+100					The addition of a fluorescent tracer makes it possible to visualize the presence of small quantities of oil under UV light.
9102	750	-35/+100					In the range of 100% synthetic high pressure oils, HP750 is the second in the series. Also available colorless (9102-SC).
9102-FL	750	-35/+100					The addition of a fluorescent tracer makes it possible to visualize the presence of small quantities of oil under UV light.
9103	1000	-30/+100					In the range of 100% synthetic high pressure oils HP1000 is the third in the series. Also available colorless (9103-SC).
9103-FL	1000	-30/+100					The addition of a fluorescent tracer makes it possible to visualize the presence of small quantities of oil under UV light.
9104	1250	-25/+100					In the range of 100% synthetic high pressure oils, HP1300 is the most viscous and last in the series. Also available colorless (9104-SC).
9104-FL	1250	-25/+100					The addition of a fluorescent tracer makes it possible to visualize the presence of small quantities of oil under UV light.



Technical features (indicative values)

Article	Viscosity 20°C (mm ² /sec)	Temperature range in °C	Unctuousness / Lubricity	Viscosity / Texture	Ageing resistance / Stability	Adhesion / Grip	General use
C-7	350	-15/+100					Mineral lubricant with good lubricity. Effective for micro motor lubrication and other micromechanical applications.
D-2	75	-30/+70					Group Microgliss D is available with several viscosities increasing from D-2 to D-5.
D-3	190	-22/+80					Group Microgliss D is available with several viscosities increasing from D-2 to D-5.
D-4	330	-15/+80					Group Microgliss D is available with several viscosities increasing from D-2 to D-5.
D-5	1200	-5/+80					Group Microgliss D is available with several viscosities increasing from D-2 to D-5.
K-6	450	-5/+120					Specially developed oil for applications with severe corrosion risks while maintaining good lubricating properties. Recommended for dip lubrication.
K-7	130	-15/+100					Formulated with a wetting agent as well as an anticorrosive agent, this product spreads perfectly. Recommended for dip lubrication.
L-5	1200	-3/+80					Compared to K-7, it will be recommended for applications requiring greater lubricity while maintaining good anti-corrosion properties.

Microgliss Group D

4 oils containing a high pressure additive on organic molybdenum basis. These oils are suitable for use under high to extreme pressure.

Microgliss Group K

2 anticorrosive oils with good lubricating properties under normal strain and good corrosion impeding properties in the presence of saline water. They are particularly suitable for use in dip lubrication. They are applied on a large variety of mechanisms which are exposed to adverse weather conditions.



SILICONE OILS & GREASES



Oils - Technical features (indicative values)

Article	Viscosity 20°C (mm ² /sec)	Temperature range in °C	Unctuousness / Lubricity	Viscosity / Texture	Ageing resistance / Stability	Adhesion / Grip	General use
H-10	11'000	0/+120					Extremely viscous silicone oil with outstanding stability properties. Moderate lubrication power, but ideal for assembly and sealing assistance.
I-31-B	510	-35/+200					Low viscosity silicone oil, with improved lubricating properties while benefiting from the stabilizing properties and chemical inertness of silicones.
I-4	1000	-35/+200					Moderately viscous silicone oil, with improved lubricating properties while benefiting from the stabilizing properties and chemical inertness of silicones.
TH7-SC	290	-30/+110					With moderate to low lubricity, it is ideally suited for the lubrication of plastics. This oil has an excellent stability at high and low temperatures.

Greases - Technical features (indicative values)

Article	Penetration 20°C (1/10 mm)	Temperature range in °C	Unctuousness / Lubricity	Viscosity / Texture	Ageing resistance / Stability	Adhesion / Grip	General use
8513	180	-50/+200					Very firm sealing grease. This silicone grease has a very high resistance to external aggressions such as water, UV or oxidative stress.
8516	200	-50/+200					"Normal" sealing grease. This silicone grease has a very high resistance to external aggressions such as water, UV or oxidative stress.



CLASSIC GREASES



Technical features (indicative values)

Article	Penetration 20°C (1/10 mm)	Temperature range in °C	Unctuousness / Lubrlicity	Viscosity / Texture	Ageing resistance / Stability	Adhesion / Grip	General use
8200	Semi liquid	-40/+80					Semi-fluid thixotropic grease with good adhesion and excellent lubricity. Ideal for mobiles and large surfaces friction.
8200-FL	Semi liquid	-40/+80					The addition of a fluorescent tracer makes it possible to visualize the presence of small amounts of grease under UV light.
8201	400	-40/+80					Similar to 8200. The addition of Molybdenum bisulfide (MoS2) enhances its lubricity and improves the resistance to pressure.
8203	210	-40/+80					Soft thixotropic gel. Do not use hot.
8207	Semi liquid	-40/+80					Semi-fluid thixotropic grease similar to 8200. The addition of graphite enhances its lubricity and improves the resistance to pressure.
8212	185	-40/+80					Glissalube B. Red, this "normal" grease provides moderate braking. Especially recommended for aluminum barrel walls. Also in colorless (8212-SC).
8213	75	-40/+80					Very firm orange grease ensures effective braking. Particularly recommended for brass barrel walls.
8217	330	-40/+80					Glissalube 20. Soft brake grease for all types of barrels.
8300	270	-40/+80					Very firm grease with very good adhesion. Recommended for the springs and winding-mechanism.
8300-FL	270	-40/+80					The addition of a fluorescent tracer makes it possible to visualize the presence of small amounts of fat under UV light.
8301	220	-40/+80					Hard, slightly thixotropic grease. Vegetable oils and graphite as a solid additive, provide very good lubricating properties.
8302	210	-40/+80					Very firm grease similar to 8300. The addition of Molybdenum bisulfide (MoS2) enhances its lubricity and improves the resistance to pressure.

Thixotropy

Thixotropy is a physical property that means the change of viscosity is the consequence of a mechanical treatment. The grease becomes liquid by movement whereas in calm condition it solidifies again. For many applications this property procures high safety against the spreading of the lubricant.



SYNTHETIC GREASES



Technical features (indicative values)

Article	Penetration 20°C (1/10 mm)	Temperature range in °C	Unctuousness / Lubridity	Viscosity / Texture	Ageing resistance / Stability	Adhesion / Grip	General use
9415	405	-30/+80					Thixotropic "normal" grease with good stability and excellent lubricity. Specially developed for the lubrication of the escapement.
9415-FL	405	-30/+80					The addition of a fluorescent tracer makes it possible to visualize the presence of small amounts of grease under UV light.
9500	185	-20/+100					Braking grease based on a polyol ester, developed for the lubrication of the barrel. With a very good crushing stability and with special additives, it presents an excellent grip and allows to protect surfaces against wear.
9501	400	-30/+80					Slightly thixotropic "normal" grease. It has been developed to solve friction (hand-setting). Also available in red and colorless (9501-R and 9501-SC).
9501-FL	400	-30/+80					The addition of a fluorescent tracer makes it possible to visualize the presence of small amounts of grease under UV light.
9504	330	-20/+100					Grease with a high stability to deformation and very good lubricity under high pressure conditions. Also available colorless (9504-SC).
9504-FL	330	-20/+100					The addition of a fluorescent tracer makes it possible to visualize the presence of small amounts of grease under UV light.
9520-FL	280	-20/+100					
9550	300	-20/+100					
9600-B	475	-40/+200					Thixotropic fluid gel. This silicone based lubricant allows a fluid and efficient lubrication (help with assembling). Also available colorless (9600-SC).

Thixotropy

Thixotropy is a physical property that means the change of viscosity is the consequence of a mechanical treatment. The grease becomes liquid by movement whereas in calm condition it solidifies again. For many applications this property procures high safety against the spreading of the lubricant.



































Technical features (indicative values)

Article	Product name (Fixodrop)	Boiling point in °C	Flash point in °C	Ozone depletion potential	Atmospheric life time in days	General use
5700	EcoSolv	110	-	0	< 10	Ecological fluorinated solvent for the dilution of our epilames. This solvent is neither toxic nor flammable.
7060	WR-S	110	-	0	< 10	Concentrated epilame solution. This permanent epilame for standard materials (steel, ruby, copper,...) is conditioned in an environmentally friendly fluorinated solvent.
7061	WR-S	110	-	0	< 10	Ready-to-use epilame solution. Diluted in Ecolsolv, this epilame is resistant to several washes. Suitable particularly for standard materials (steel, ruby, copper,...).
7062	WR-S	110	-	0	< 10	Ready-to-use epilame solution. Same as 7061 but more diluted, it is recommended for production lines with extremely clean parts.
7070	WR-P	110	-	0	< 10	Concentrated epilame solution. This permanent epilame for precious or special materials (gold, rhodium, nickel) is conditioned in an environmentally friendly fluorinated solvent.
7071	WR-P	110	-	0	< 10	Ready-to-use epilame solution. Diluted in Ecolsolv, this epilame is resistant to several washes. Suitable particularly for precious or special materials (gold, rhodium, nickel).
7072	WR-P	110	-	0	< 10	Ready-to-use epilame solution. Same as 7071 but more diluted, it is recommended for production lines with extremely clean parts.
8971	W-10	100	-	-	-	Ready-to-use epilame solution in aqueous base. Washable: This epilame can be removed after a simple wash with an aqueous or alcoholic solution.
8980	BS	110	-	0	< 10	Concentrated epilame solution. This permanent epilame is conditioned in an environmentally friendly fluorinated solvent. This solution must be diluted with Ecosolv solvent.
8981	BS-10	110	-	0	< 10	Ready-to-use epilame solution. Diluted in Ecolsolv, this epilame is resistant to several washes. Suitable for all types of materials.
8982	BS-20	110	-	0	< 10	Ready-to-use epilame solution. Same as 8981 but more diluted, it is recommended for production lines with extremely clean parts.



Technical features (indicative values)

Article	Viscosity 20°C (mm ² /sec)	Temperature range in °C	Unctuousness / Lubridity	Viscosity / Texture	Ageing resistance / Stability	Adhesion / Grip	General use
9701	40	-20/+100					Test oil N° 1. This fluorinated oil is a positive indicator to check for the presence of the Fixodrop epilame on a surface.
9702	55	-40/+100					Test oil N° 2. Without epilame on the surface this oil spreads extremely easily compared to a classic watch oil.
9703	56	-40/+100					Test oil N° 3. Without epilame on the surface this oil spreads extremely easily compared to a classic watch oil.
9704	48	-40/+100					Test oil N° 4. Without epilame on the surface this oil spreads easily, comparable to standard watch oil exhibiting a moderate grip.
9705	44	-30/+90					Test oil N° 5. Without epilame on the surface this oil spreads significantly like a watch oil with a very good grip would do.
9706	63	-20/+80					Test oil N° 6. Without epilame on the surface this oil spreads very little like a watch oil with a very good grip would do.
V105	-	-20/+60					Ready-to-use lubricant solution for dip lubrication. Ideal for after sales service.
V106	-	-40/+80					Ready-to-use lubricant solution for dip lubrication. Ideal for after sales service.

Test oil

Moebius offers 6 types of Test-oil which should be used to control the quality of the Fixodrop epilame deposited on a surface.

Test oil 1 confirms the presence of the epilame by spreading. The surface tension in the oil increases from test oil 2 to test oil 6. The lower the surface tension, the higher the tendency to spread.



LUBRICATION TABLE



Functions	Calibers Dimensions 5" – 18"	Calibers Large dimensions (Pendulum, clock, alarm clock)	Quartz movements
Balance staff, fast mobiles with small torque	9010 / 8000 9030 (low temperature) 9040 (ultra-low temperature)	9020 / 8030	9000 / 9024
Pivoting mobiles with medium to large torque	9101* / 9102* / 9103* / 9104* / D-5	9101* / 9102* / 9103* / 9104* / D-5	
Escapement lift and escape wheel	9415 / 941 / 9010	9415 / 9020	
Barrel spring	8200 / 8141 / 8201		
Barrel walls	8217 / 8212 (Aluminum) 8213 (Brass) / 9500	8141 / 8201 / 9500	
High friction, cannon-pinion, hand setting, various chrono- mechanism	9501 / 9504 / 9520-FL / 9550 K-6** / L-5**	9504 / 9520-FL / 9550 / K-6**	
Winding mechanism, calendar	9101* / 9102* / 9103* / 9104* D-5 / K-6** / L-5**		
Pull-out and push pieces, winding mechanism, spring pin	8300 / 8301 / 8302		8300 / 8301 / 8302
Packing O-ring for water tightness and external parts	8513 / 8516 / H-10	8513 / 8516 / H-10	8513 / H-10
Ball bearing, springs	V106		
Inversion wheel, clicks	V105		

* The choice of viscosity depends on the power reserve.
The Synt-HP oils (9101, 9102, 9103, 9104) are preferentially in use for ruby bearings. For brass bearings, we recommend Microgliss D-4 or D-5.

** In certain conditions, these products may be preferred over standard products. For optimal effectiveness these products can also be dissolved in petrol type solvents, used in dip lubrication before lubrication with the standard product.

