



Krytox™

PERFORMANCE LUBRICANTS

Krytox™ Performance Lubricants

Krytox™ is a series of oils and solid oils with distinguishing chemical and mechanical properties. They have been primarily designed for the Apollo mission of the American agency NASA in the half of the previous century. Since then, Krytox™ series products have been applied in almost all industry branches.

Krytox™ oils are composed of perfluoropolyether (PFPE), fluoropolymer which is fluid and does not react easily. Krytox™ series solid oils are composed of PFPE as the base oil and polytetrafluoroethylene (PTFE) which is a functional thickener. PTFE, sold by the primary manufacturer, the company DuPont®, under the Teflon® brand, is a thermally stable solid oil, with extraordinary properties. Apart from thickening, PTFE which was applied there, is also responsible for high stability and greater safety, thanks to additional properties which guarantee correct operation after the grease layer is used up.

High stability and resistance of Krytox™ greases results from high compatibility of PFPE and PTFE. Lubricants which are stable in terms of temperature and pressure, work reliably and effectively in a relatively big temperature range.

Krytox™ series fluorested oils and solid oils are often applied where complete lack of combustibility, oxygen compatibility, as well as resistance to aggressive chemicals are desirable.

Chemical structure

Unique characteristics of Krytox™ series products are based on the particular molecular structure of PFPE and PTFE. PFPE and PTFE molecules are composed of a so-called “shielded” polymer chain, which means that the chain of molecules is completely saturated and does not react easily.



PFPE molecular structure

A polymer chain only contains carbon, oxygen and fluorine. A typical Krytox™ oil contains 21.6 weight per cent of carbon, 9.4 weight per cent of oxygen and 69.0 weight per cent of fluorine.



PTFE molecular structure

The size of the particles of PTFE used in Krytox™ solid oils is very small. Thanks to the above, the desired consistency of grease is possible to obtain with the use of a small amount of PTFE. Low participation of densifier in lubricants is responsible for perfect efficiency of lubrication and long life of Krytox™ lubricants.

Review of the main advantages of synthetic Krytox™ lubricants:

- very high stability as regards the temperature
- prolonged intervals between maintenance episodes
- lower cost of lubricants
- odourless and transparent
- chemically inert
- non-combustible and non-flammable
- are resistant to aggressive chemicals and oxygen
- low volatility
- long period of use





Technical information

Krytox™ series oils and solid oils are resistant as regards the temperature and the pressure. They are non-combustible and non-flammable, compatible as regards oxygen and resistant to aggressive chemicals. They function very effectively, since they are extremely stable and durable. Compared to traditional lubricants, they are convincing thanks to their clearly longer period of use. Krytox™ products are reliable in the scope of temperatures between -70 °C and over 400 °C – depending on the type - as well as under high pressure and in vacuum.

Krytox™ series products are chemically neutral and do not migrate even in high temperatures. Krytox™ oils and solid oils are non-conducting and compatible with almost all commonly used plastics and metals. High-quality Krytox™ oils and solid oils are insoluble in most of dissolvents. However, in the case of some strongly fluoresced fluids, a suspension can be formed.

Non-combustibility

Krytox™ oils and solid oils are only composed of carbon, oxygen and fluorine. Since the chemical compound contains no hydrogen, Krytox™ products are non-flammable. Moreover, they do not support combustion, even in the presence of 100% fluid or gas oxygen.

Biological properties and the environment

Krytox™ series oils and solid oils are chemically inert and biologically neutral. Since they are not metabolism products, they do not support any biological growth.

Thanks to the use of Krytox™ products, the demand for traditional, hydrocarbon-based lubricants is decreased, which helps to prevent the possible negative influence on the environment. Krytox™ also protects the environment thanks to its long life and lesser amount of the agent. Besides, thanks to the perfect lubricating properties, the shaft abrasion by valve seal, which is dangerous to the environment, may, for instance, be reduced.

In addition, Krytox™ oils and solid oils do not contain silicone or chlorine, nor do they emit any volatile organic compounds (VOC) to the atmosphere.

Food contact approval

Numerous Krytox™ series products have the H1 certificate of the American organization NSF, approving unintended, immediate food contact. They are, most of all, used in package, food and pharmaceutical industry.

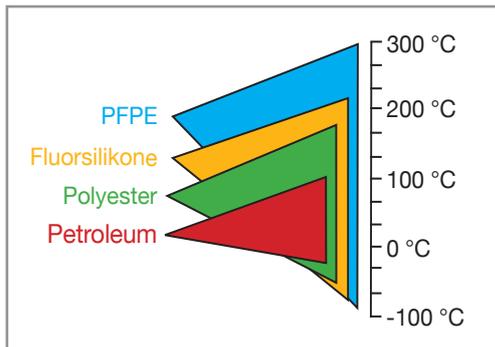
Stability

Thermal stability

Krytox™ series lubricants are very stable in the temperature range between -75 °C and 350 °C and they even withstand the maximum of over 420 °C. Based on the thermal differential analysis, it has been determined that the analysis temperature amounts to ca. 470 °C. In the temperature of 355°C the analysis factor only amounted to 0.03 wt. % and it has risen in the temperature of 399°C only to 1.3 wt. %.

In a 6-hour test with the use of nitrogen, under the thermal load conditions, which amounted to 371°C, no increase in number of neutralizations or in the volatility level were found.

The presence of oxygen almost does not lower the analysis temperature. In contact with Lewis acids, good depolymerisation amounting to 288 °C may take place.



Mechanic stability

Krytox™ lubricants withstand extremely high mechanical stress without any loss of the base oil. The change of the solid oil consistency was measured after 60, 10 000 and 100 000 cycles. All tested Krytox™ solid oils have only manifested small changes, amounting to less than 30 points on the NLGI scale. Decrease in stiffness in the case of all the tested solid oils amounted to no more than half of a degree of the output value. In the roller durability test, only a change of less than a half of a degree of the output value was recorded.

Typical consumption and load-carrying capacity		
Oil	Four ball test* Consumption depth	Falex Pin/ V-blok max load
Krytox™	0.36 mm	>2 050 kg**
CTFE	0.37 mm	>2 050 kg**
Fluorosilicone	0.43 mm	525 kg
Diester	0.61 mm	1.040 kg
Petroleum	0.69 mm	590 kg

* 20 kg, 107 °C, 1200 U/min, 60 min, 52.100 balls
** The test was stopped at 2 050 kg

Oxygen resistance

Krytox™ is resistant to gas and liquid oxygen even in the conditions of high thermal and pressure stress.

During tests conducted together with Marshall Space-Flight-Center according to MSFC-Spec-106 B, Krytox™ did not react with liquid oxygen. Therefore, Krytox™ lubricants are often used in oxygen production and processing, as well as in branches of industry which use oxygen.

Krytox™ oils and solid oils have been checked by Bundesinstitut für Materialprüfung [BAM - Federal Institute for Material Research and Testing] paying special attention to the reactions with gas and liquid oxygen and classified as safe and suitable for immediate contact.

Radiation stability

Compared with many other lubricants, Krytox™ oils are exceptionally stable as regards radiation. Radiation of the Krytox™ products only results in slight depolymerization and this results in a decrease in the viscosity and forming volatile products. Solid materials or oil remains do not form at all. The test in which the Krytox™ sample was exposed to 107 radium electron bombardment in room temperature, has proven that the viscosity loss only amounts to 8%. The radiated sample contained no oil remains. It did not change its appearance, either.

Conductivity

Krytox™ oils and solid oils are very good insulators. After adding special components, such as powdered copper, they may, however, start to conduct electric current.

Krytox™ electric properties	
dielectric breakdown voltage ASTM D877, kV/0.1	Krytox™ 143 AZ: 34 Krytox™ 143 AA: 47 Krytox™ 143 AC: 56
Resistivity ASTM D257, ohm-cm	0.6 to 4.0 x 10 ¹⁴
Dielectric constant ASTM D150 at 102 to 105 Hz	2.1 - 2.2
Dielectric constant ASTM D924 at 60 Hz, 25 °C	2.2 to 2.4
Loss coefficient ASTM D150, in % at 102 to 105 Hz	3.0 to 7.0 x 10 ⁻³



Resistance

Krytox™ oils and solid oils are compatible with almost all metals, polymers and plastics. Up to the temperature of 288 °C they do not react with metals. In the case of thermal loads amounting more than 288 °C, Krytox™ products may be applied to numerous commonly used metals and alloys, such as aluminium, titanium, nickel or cobalt alloys. In the case of using Krytox™ with plastics and polymers, what constitutes the limit is their thermal stability. In some materials, only slight surface changes may occur, which, however, do not influence the functionality at all.

Krytox™ lubricants¹ are compatible with most of commonly applied elastomers and plastics, including: ABS, acetal homopolymer and copolymer, butyl, Delrin®, EPDM, EPT, ethyl acrylate, FEP, fluoroelastomer, fluorosilicone, HDPE, HNBR, Hypalon®, Hytrel® polyester elastomer, LDPE, methyl silicone, rubber, NBR, neoprene, nitrile, nylon, PEBA, PEEK, polyamid, polycarbonate, polietherimide, copolymer, polyethylene, polypropylene, PCW, SBR, SEBS, silicone, Teflon®, polyurethane, TPE, TPU, polyamide resin, Viton® fluoroelastomer ...

Resistance to chemicals

Krytox™ oils and solid oils are inert to most of chemicals. No reaction was observed with boiling sulfuric acid, fluorine - in the temperature up to 200°C, melted sodium hydroxide, chlorine trifluoride - in the temperature 10 °C - 50 °C, uranium hexafluoride - in the temperature of 50°C or with any of the following substances in room temperature: turbine engine fuel JP-4, hydrazine, diethylenetriamine, ethanol, aniline, 90% hydrogen peroxide, nitric acid, nitrogen tetroxide.

Some Krytox™ oils are slightly soluble in hydrazine and moderately soluble (25 to 30%) in nitrogen tetroxide.

Krytox™ is insoluble in traditional organic dissolvents, as well as in acids and bases. Special dissolvents are needed to dissolve, clean and remove Krytox™ products.

Krytox™ lubricants have been also tested with gas and liquid oxygen and chlorine - no visible reaction took place. Krytox™ products are, therefore, suitable for use on rubber seals and bearings, plastics and metals, combined with strongly reacting gases, oxygen and chlorine. Lewis acids, such as boron trifluoride, aluminium chloride, iron (III) chloride and titanium tetrachloride, can react with PFPE oils and adversely influence the temperature of constant work of Krytox™ products. In higher temperatures, these acids can also lead to their decomposition.

During the use of Krytox™ products together with metallic alkalies, such as sodium and [other] lithium group elements, reactions may possibly occur. In such a case it is recommended to use the products only after previous thorough tests.

Some types of solid oils contain anti-corrosion additives or EP additives. They do not have the same chemical stability as Krytox™ series standard oils and solid oils, therefore, if contact with aggressive or strongly reacting chemicals is possible, we recommend application of usual oils and greases, with no additives.

¹ The data refer to standard Krytox products, with no additives.

Durability

Krytox™ oils and solid oils have, unlimited durability, if they are stored unopened, in a clean and dry place. Stored in room temperature, in unopened containers, they do not manifest any changes in their properties even after twenty years.

Opened containers may be contaminated by moisture, dust or dirt and they must be handled carefully, in particular when earlier storage conditions are not known. The material can also be contaminated due to the use of dirty or insufficiently cleaned tools or pumps.

Krytox™ products are composed of perfluoropolyether and polytetrafluoroethylene and they are chemically inert to oxygen and most of chemicals. They do not migrate, or oxidize, or decompose during storage. They remain stable, until they reach their decomposition temperature, which exceeds 350 °C.

Some Krytox™ greases contain additives whose purpose is to improve their efficiency. Indeed, there is no data concerning long-term storage of greases with additives, however, probably no essential differences should be expected compared to the product with no additives.

After a long storage period, grease stratifies and a thin layer of oil can be seen on the surface. This does not affect the efficiency of the solid oil: after a short stirring, the oil will mix with the solid oil again.

Only in the case of Krytox™ XP series lubricants, a faint scent can be released and a change of colour into amber may occur. Due to this fact, they have a definite validity period of 3 years. However, tests have proved that at the end of this three-year period, the products still have their anti-corrosion properties and are still characterized by a perfect lubricating efficiency.

Exploitation period

The exploitation period is connected with the behaviour of the lubricant in the conditions of exploitation, measured for its entire life, whereas the validity period only refers to oxygen stability of the lubricant, with no further external influence.

The exploitation period of a lubricant is shorter than its validity period, since degenerative factors influence the lubricant during its use. Its length cannot be exactly anticipated, as it is influenced by numerous factors. However, based on the validity period of a lubricant, the exploitation period can be predicted.

For instance: Krytox™ GPL 225 is designed to work in a maximum temperature which amounts to 204°C. This grease was tested in the temperature of 200°C, at 10 000 U/min, for over 5 000 hours in the bearing life test (ASTM D-3336). Bearings have not stopped working. The test ended after 5 000 hours, since none of the solid oils tested before has withstood such a long period. In lower temperatures, the test has shown a theoretical exploitation period which amounted to more than a hundred thousand hours without any predicted bearing breakdown.





Various types of consistency

Krytox™ solid oils are manufactured based on oils with various viscosity, in order to be applied in different ambient conditions.

Base oils of high viscosity constitute a basis for solid oils, which can be used in the conditions of high pressure stresses or low speed. Base oils of low viscosity are, at the same time, used for solid oils of very good low-temperature properties, or in the case of application in the conditions of high speed.

The consistency of a solid oil depends on the proportion of the thickener to base oil. Small amounts of thickeners result in the fact that the grease is very soft or almost liquid. In the case of a higher content of a solid agent, grease is harder and stiffer. Apart from the above, the used additives have a small influence on the consistency.

Krytox™ solid oils have, as a rule, a NLGI 2 consistency class. Apart from the above, greases with other viscosity are available.

Consistency of solid oil according to ASTM		
NLGI class	mm/10 at 25°C	Structure
000	445 to 475	very fluid
00	430 to 440	fluid
0	355 to 385	semi-fluid
1	310 to 340	very soft
2	265 to 295	soft
3	220 to 250	medium-hard
4	175 to 205	hard
5	130 to 160	very hard
6	85 to 115	extremely hard

Density

Density is responsible for specific gravity of the material. It is necessary for conversion of weight units into volume units. Krytox™ series oils and solid oils have the thickness which amounts to almost 2 g/cm³. This means that their specific gravity is almost twice as high as that of lubricants based on hydrocarbons. This must be particularly taken into consideration in the case of filling warehouses as to their volume.

Viscosity and viscosity coefficient

Viscosity is a measure of plastic resistance under the influence of a load. Krytox™ GPL series oils have, for instance, in the temperature of 20°C, viscosity from 7 cSt to 1 600 cSt. In the case of Krytox™ series oils, viscosity amounts from 62 cSt to 2 717 cSt. Solid oils are, as a rule, compared based on the viscosity of the base oil used in them.

The viscosity level (Vl) is a number determined as a result of calculations. It is characterised by a change in viscosity of some liquid, conditioned by the temperature. A high viscosity factor means a relatively low change, along with the increase in the temperature. Krytox™ GPL series products have, for instance, viscosity level between 60 and 155.

Application

Krytox™ lubricants are produced in different versions. They are suitable for application in almost all industry branches. Fluoresced oils and solid oils are often applied where complete lack of combustibility, oxygen compatibility, thermal and mechanical stability, as well as resistance to aggressive chemicals are desirable or necessary.

Typical applications:

- bearings for paint shops and transporters
- bearings for corrugated board machines and paper machines
- robotics
- welding machines
- high-temperature fans
- textile equipment appliances
- fitting frames
- high-temperature furnaces
- transporting systems in glass works and aluminium works
- cylindrical roller bearings
- brick kiln trolley bearings
- fan bearings
- rod grinders
- valves and valve servomotors
- mechanical vehicle electric generators
- fan viscous coupling units
- permanently lubricated bearings
- and many others

Help in selecting: oil or solid oil

The selection of an appropriate lubricant for a given application depends on various factors, such as working or ambient temperature, properties of the item for which the agent is to be applied and the surrounding medium. What is also essential when making the decision, is the expected degree of contamination during the exploitation or in the conditions of a given load.

Weighing up all the pros and cons, one must also take into consideration such factors as harmlessness to the environment and minimization of risk during storage or transport.

Selecting of oil or solid oil depends on various criteria. For instance, for use in bearings, we recommend Krytox™ solid oil, if:

- the applied housings and seals are not designed to stop oil or contaminations
- protection against dust, vapour or other contaminations is necessary
- longer intervals between individual supplementing lubrications are necessary
- it is necessary to avoid contamination of the product by the lubricant.

We recommend, however, use of Krytox™ oil if:

- the working temperature is constant and the oil flow is to result in heat removal
- the possibility to allow contaminations is limited and sealed containers and seals can be applied
- contaminations can be removed from the system with the use of oil and filtered in external filters.



Products and product series

Krytox™ GPL (General Purpose Lubricants) series – universal lubricating oils and solid oils

Krytox™ 10x, or possibly 20x series oils and solid oils do not contain any additives. They constitute a universal solution to problems and are suitable for almost all applications.

In Krytox™ GPL 21x series products, molybdenum disulphide was used as EP additive. They should be used in the case of low speed or high load.

In Krytox™ GPL 22x lubricants, sodium nitrite is an additive preventing corrosion and wear and tear. They are perfect for use in the corrosion-favouring conditions.

Krytox™ GPL 29X solid oils have EP and anti-corrosion additives. They are designed for use at high mechanical load in corrosion-favouring conditions.

Krytox™ GPL 2EX lubricants have new anti-corrosion additives. These greases are similar to Krytox™ GPL 22X series greases, but a nitrite-free anti-corrosion additive was used in them.

Krytox™ vacuum pump fluids

Krytox™ VPF fluids are used in pumps and vacuum systems. In particular, they are suitable for such applications in which the vapour pressure, non-combustibility and chemical inertness are desirable or necessary. Krytox™ vacuum pump fluids are subject to recycling and can be used again.

Krytox™ products in air and space industry

Krytox™ 143 series is composed of colourless, fluorinated, synthetic oils which have a long usage period, are non-reactive, non-combustible and inert in contact with chemicals and oxygen.

Krytox™ 240 series greases are white and have identical properties as oils they have been produced from. Krytox™ 240 AZ, 240 AB and 240 AC products reflect the general specification MIL-PRF-27617.

Krytox™ Extra High Temperature products

Krytox™ XHT-S i XHT-SX are high-temperature greases, designed for use in the temperature between 204°C and 300°C. They are particularly stable in the conditions of high, permanent or intermittent thermal stress. Besides, Krytox™ XHTAC i XHT-ACX solid oils have additives preventing corrosion and wear and tear.

Other Krytox™ series

Apart from the aforementioned products, the Krytox™ assortment also includes other individual products and series for special use, such as electric motor, or application with strongly reactive materials.

	Standard oil	Standard grease	Grease with high-pressure additive	Grease with anti-corrosion additive	Grease with organic anti-corrosion additive	Grease with fluid anti-corrosion additive	Grease with infusible thickener	Working temperature from
Universal lubricants								
Krytox™	GPL 101	GPL 201	GPL 211	GPL 221	GPL 2E1	GPL 2A1		< -70 °C
Krytox™	GPL 102	GPL 202	GPL 212	GPL 222	GPL 2E2	GPL 2A2		-63 °C
Krytox™	GPL 103	GPL 203	GPL 213	GPL 223	GPL 2E3	GPL 2A3		-60 °C
Krytox™	GPL 104	GPL 204	GPL 214	GPL 224	GPL 2E4	GPL 2A4		-51 °C
Krytox™	GPL 105	GPL 205	GPL 215	GPL 225	GPL 2E5	GPL 2A5		-36 °C
Krytox™	GPL 106	GPL 206	GPL 216	GPL 226	GPL 2E6	GPL 2A6		-36 °C
Krytox™	GPL 107	GPL 207	GPL 217	GPL 227	GPL 2E7	GPL 2A7		-30 °C
Greases for air and space industry								
Krytox™	143AZ	240AZ	250AZ	283AZ				-57 °C
Krytox™	143AA	240AA		283AA				-51 °C
Krytox™	143AB	240AB		283AB				-40 °C
Krytox™	143AC	240AC	250AC	283AC				-34 °C
Krytox™	143AD	240AD	250AD	283AD				-29 °C
High-temperature lubricants								
Krytox™	XHT-500	XHT-S		XHT-AC			XHT-BD	-20 °C
Krytox™	XHT-750	XHT-SX		XHT-ACX			XHT-BDX	-15 °C
Krytox™	XHT-1000						XHT-BDZ	-5 °C
Vacuum pump oils and grease								
Krytox™	1506/1506XP							-
Krytox™	1514/1514XP							-
Krytox™	1525/1525XP							-
Krytox™	1531/1531XP							-
Krytox™	16256							-
Krytox™	1645							-
Krytox™		LVP						-
Electric motor oils and grease								
Krytox™	AUT 1045	AUT 2045		AUT 2245	AUT 2E45			-44 °C
Reactive material grease								
Krytox™	NRT 8805							-40 °C
Krytox™		NRT 8990						-75 °C
Krytox™		NRT 8900						-51 °C
Krytox™		NRT 8904						-51 °C
Krytox™		NRT 8906/PLSS						-36 °C
Krytox™						NRT 8906 A		-36 °C
Krytox™			NRT 8908					-40 °C
Krytox™							NRT 8950	-15 °C

Products marked in blue have an NSF certificate, allowing occasional, immediate food contact.

Temperature	Base oil viscosity				VI	NLGI	Base oil density			Volatility		
	to	20 °C	40 °C	100 °C			204 °C	Oil	Grease	0 °C	20 °C	100 °C
104 °C	17,4 cSt	7,8 cSt	2 cSt	-	-	2	1,89 g/ml	1,85 g/ml	1,70 g/ml	75 %	-	-
132 °C	38 cSt	15 cSt	3 cSt	-	29	2	1,91 g/ml	1,87 g/ml	1,72 g/ml	35 %	-	-
154 °C	82 cSt	30 cSt	5 cSt	-	92	2	1,92 g/ml	1,88 g/ml	1,74 g/ml	7 %	-	-
179 °C	177 cSt	60 cSt	8,4 cSt	-	111	2	1,93 g/ml	1,90 g/ml	1,75 g/ml	3 %	-	-
204 °C	522 cSt	160 cSt	18 cSt	3,1 cSt	124	2	1,94 g/ml	1,91 g/ml	1,76 g/ml	1 %	7 %	-
260 °C	822 cSt	243 cSt	25 cSt	4,1 cSt	134	2	1,95 g/ml	1,91 g/ml	1,77 g/ml	<1 %	<3 %	-
288 °C	1.535 cSt	450 cSt	42 cSt	6 cSt	145	2	1,96 g/ml	1,92 g/ml	1,78 g/ml	-	<1 %	-
149 °C	60 cSt	22,8 cSt	4,1 cSt	1,1 cSt	60	2	1,91 g/ml	1,72 g/ml	-	-	-	-
177 °C	88 cSt	32 cSt	5,3 cSt	1,3 cSt	96	2	1,92 g/ml	1,74 g/ml	-	-	-	-
232 °C	240 cSt	78 cSt	10,2 cSt	2,1 cSt	113	2	1,93 g/ml	1,75 g/ml	-	17,3 %	76,2 %	-
288 °C	800 cSt	243 cSt	25,4 cSt	4,1 cSt	134	2	1,95 g/ml	1,77 g/ml	-	<1 %	4 %	-
316 °C	1.540 cSt	450 cSt	42,4 cSt	6 cSt	146	2	1,95 g/ml	1,78 g/ml	-	-	2 %	-
300 °C	1.712 cSt	500 cSt	46,4 cSt	6,8 cSt	-	2	1,95 g/ml	1,78 g/ml	-	<1 %	2,1 %	-
350 °C	2.610 cSt	738 cSt	64,6 cSt	8,8 cSt	149	2	1,95 g/ml	1,78 g/ml	-	<0,4 %	1,5 %	-
360 °C	3.500 cSt	1.023 cSt	88,5 cSt	11,4 cSt	158	2	1,95 g/ml	1,78 g/ml	-	<0,3 %	1,1 %	-
-	60 cSt	15,5 cSt	4,1 cSt	-	-	-	1,88 g/ml	1,73 g/ml	6,5 %	-	-	-
-	140 cSt	32 cSt	7,2 cSt	-	-	-	1,89 g/ml	1,74 g/ml	1,3 %	-	-	-
-	250 cSt	52 cSt	10,6 cSt	-	-	-	1,90 g/ml	1,75 g/ml	0,6 %	-	-	-
-	310 cSt	63 cSt	12,5 cSt	-	-	-	1,90 g/ml	1,75 g/ml	0,4 %	-	-	-
-	2.560 cSt	437 cSt	64,6 cSt	-	-	-	1,92 g/ml	1,78 g/ml	0,2 %	-	-	-
-	450 cSt	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	1,94 g/ml	-	-	<0,3 %	-	-
200 °C	310 cSt	100 cSt	12,5 cSt	-	100	2	-	-	-	0,5 %	2 %	-
160 °C	-	81 cSt	11 cSt	-	-	-	1,9 g/ml	-	1 %	-	-	-
150 °C	-	15 cSt	3,7 cSt	-	-	1	1,9 g/ml	-	8 %	-	-	-
121 °C	-	18,7 cSt	-	-	-	2	1,9 g/ml	-	35 %	-	-	-
179 °C	-	60 cSt	9 cSt	-	-	2	1,93 g/ml	-	3 %	-	-	-
260 °C	-	240 cSt	25 cSt	4 cSt	-	2	1,95 g/ml	-	1%	<5 %	-	-
200 °C	-	240 cSt	25 cSt	4 cSt	-	2	1,95 g/ml	-	1%	<6 %	-	-
180 °C	-	49 cSt	7,2 cSt	-	-	2	2 g/ml	-	2%	-	-	-
325 °C	-	500 cSt	47 cSt	-	-	1,5	1,95 g/ml	-	-	<1 %	2,1 %	-



Authorized distributor of Krytox™,
a brand of The Chemours Company



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