Lubenotes:

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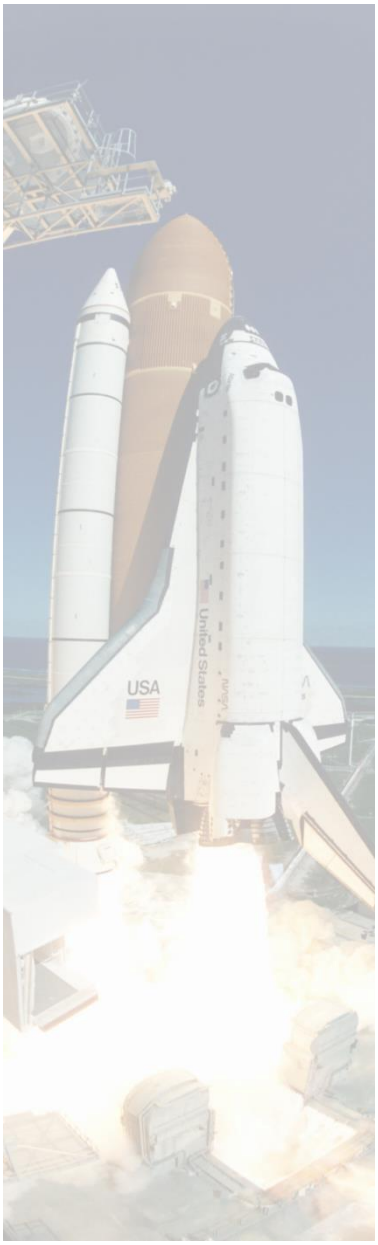
UniFlor™ High Performance PFPE Lubricants



Contact Nye at +1.508.996.6721
or contact@nyelubricants.com

Design Engineer's Guide to Selecting a Lubricant

UniFlor™ perfluoropolyether (PFPE) lubricants are designed for applications that require: wide temperature serviceability (-90°to 250°C); low volatility; oxygen compatibility; fuel and chemical resistance; nonflammability; and/or compatibility with plastics and elastomers.

A unique line of high performance lubricants. Unlike any other line of fluorinated lubricants, the UniFlor family includes all types of PFPE oils a distinct advantage to the design engineer who needs a high-performance lubricant. While each PFPE oil is a polymer composed of carbon, fluorine, and oxygen atoms, the chemical structure of each oil varies as a result of the base materials and polymerization processes used by the different PFPE manufacturers. These structural differences affect the base fluid's pour point, volatility, and viscosity index – all critical factors in lubricant formulation. Some PFPE oils, for example, have a pour point of only -20°C, while others offer pour points as low as -90°C. Similarly, some PFPE oils offer better wear resistance properties than others. Because the UniFlor product line includes lubricants formulated with each of the world's PFPE oils, a design engineer now can get from a single source the PFPE lubricant that best matches the operating environment of his/her applications.

Products for a wide range of applications. The UniFlor product line is divided into five series of products, each designed for specific applications.

- *The UniFlor 8100 Series* offers multipurpose lubricants for gears, slides, light-duty bearings, and whenever plastic and elastomer compatibility is essential. It is one of the most economical lines of PFPE lubricants available.

- *The UniFlor 8500 Series* is designed especially for high-speed, high-temperature bearings. It also performs exceptionally well in low-temperature, low-starting torque applications.

- *The UniFlor 8600 Series* offers wide-temperature, ultra-viscous greases for industrial bearings. These products also serve as sealants for vacuum applications.

- *The UniFlor 8700 Series* combines wide-temperature, high-load capability, and ultra-low volatility, particularly for metal-on-metal applications.

- *The UniFlor 8900 Series* is recommended for delicate precision instruments, sensors, potentiometers, actuators and bearings where ultra-low temperature and low torque are critical design parameters.

Selecting the right UniFlor lubricant for your application. Currently Nye offers more than 50 different UniFlor greases which can be enhanced with a full range of grease additives, including anti-corrosion, extreme pressure, rust inhibitors, tractions fluids, and UV dyes. Following is a representative sample of Nye UniFlor greases. Though not listed here, Nye also offers more than two dozen water-white, nonflammable UniFlor oils in a wide range of viscosities, some with exceptionally low vapor pressure. Nye also custom-formulates PFPE lubricants to meet individual design specifications and operating environments.

For technical data, evaluation samples, questions about any UniFlor product, or to discuss a PFPE lubricant custom-designed for your application – call us at +1.508.996.6721 or visit our website at NyeLubricants.com.

Lubenotes: UniFlor™ High Performance PFPE Lubricants

Multipurpose Grease	Temp Range (°C)	Base Oil kV 40°C	Base Oil Pour Point (°C)	Base Oil Viscosity Index
UniFlor™ 8512	-50 to 225	65 cSt	-54	258
UniFlor™ 8172	-45 to 225	167 cSt	-48	120
UniFlor™ 8182	-25 to 225	255 cSt	-29	132
UniFlor™ 8192	-20 to 250	400 cSt	-28	150

Wide-Temperature, High-Speed Bearing Grease	Temp Range (°C)	Base Oil kV 40°C	Base Oil Pour Point (°C)	Base Oil Viscosity Index
UniFlor™ 8511	-50 to 225	65 cSt	-70	258
UniFlor™ 8521	-45 to 225	168 cSt	-48	213
UniFlor™ 8531	-40 to 225	230 cSt	-41	178

Industrial Bearing Grease and Vacuum Sealant	Temp Range (°C)	Base Oil kV 40°C	Base Oil Pour Point (°C)	Base Oil Viscosity Index
UniFlor™ 8612	-20 to 250	345 cSt	-25	136
UniFlor™ 8322	-20 to 250	800 cSt	-26	138

Wide-Temperature, High Load, Metal-on-Metal Grease	Temp Range (°C)	Base Oil kV 40°C	Base Oil Pour Point (°C)	Base Oil Viscosity Index
UniFlor™ 8711	-70 to 200	26 cSt	-76	179
UniFlor™ 8731	-60 to 225	62 cSt	-65	194
UniFlor™ 8751	-54 to 250	100 cSt	-67	212
UniFlor™ 8771	-50 to 250	192 cSt	-53	231

Extreme Temperature, Vacuum-Capable Precision Instrument Grease	Temp Range (°C)	Base Oil kV 40°C	Base Oil Pour Point (°C)	Base Oil Viscosity Index
UniFlor™ 8951	-90 to 200	18 cSt	-80	317
UniFlor™ 8961	-80 to 200	33 cSt	-85	336
UniFlor™ 8971	-75 to 225	90 cSt	-80	320
UniFlor™ 8921	-65 to 250	135 cSt	-73	334
UniFlor™ 8981	-65 to 250	136 cSt	-80	335
UniFlor™ 8931	-70 to 250	310 cSt	-67	342

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