



# VACUUM OILS & GREASES

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# NYE Greases for Severe Applications

For more than 50 years, NYE has been working with NASA and leaders in the commercial aerospace industry, qualifying lubricants for mission critical components while addressing problems like outgassing, contamination, and starvation. Outgassing reduces the effectiveness of a lubricant and can contaminate nearby components.

Neyco offers a complete line of NYE lubricants for Vacuum, Semiconductor and Cleanroom Solutions.

## UNIFLOR 8322

Uniflor 8322 is a PTFE thickened, heavy viscosity, completely fluorinated grease intended for applications where plastic and elastomer compatibility and resistance to aggressive chemicals are required.

SPECIFICATIONS	UNITS	UNIFLOR 8322
Vapor pressure at 20°C	mbar	7.10 <sup>-12</sup>
Vapor pressure at 100°C	mbar	6.10 <sup>-10</sup>
Temperature range	°C	-20 to 250
Density	g/ml	1.97
Base oil viscosity index	-	138
Base oil viscosity at 40°C	cSt	800



Uniflor 8322



NyeTorr lubricants

## NYETORR

These products have been developed with several key parameters in mind: Low Outgassing, High temperature Stability, Aggressive Chemical Resistance, Wear Protection, and Cleanliness. The raw materials used in NyeTorr formulations are tightly controlled on a molecular level to limit the vapor pressure, outgassing and contamination.

Nye tests and certifies the vapor pressure of each batch to guarantee that the vapor pressure on the label matches the actual vapor pressure of the lubricant. Additionally, all NyeTorr lubricants are subjected to a proprietary "Ultrafiltration Process" which removes microscopic particulates and homogenizes agglomerated thickeners.

NyeTorr offers all known fluorinated lubricants as well as non-fluorinated oils and greases, which are better suited to more heavily loaded devices. Importantly, non-fluorinated products have vapor pressures as low as fluorinated products.

NyeTorr comes with custom formulation services. If a standard NyeTorr lubricant does not optimize the performance of your device, Nye engineers will work with you to customize a vacuum lubricant that meets your needs.

## COMPARATIVE MATRIX OF NYE PRODUCT LINES FOR THE SEMICONDUCTOR INDUSTRY

	ULTRAFILTERED ( < 300 PARTICLES/cc < 35 µm ) LOW PARTICLE GENERATION (CLASS 1.00 CLEANROOM CAPABLE)	HIGH TEMPERATURE (CAPABLE OF > 175°C)	WEAR RESISTANCE	CHEMICALLY INERT	VERY LOW STARTING TORQUE ( < 200 g.cm ) LOW OUTGASSING (PASSING ASTM E-595 RESULT)	LOW VAPOR PRESSURE	VACUUM CAPABILITIES
NyeTorr 6200	•	•	•	•	•	•	XXXXX
NyeTorr 6300	•	•	•	•	•	•	XXXXX
NyeTorr 5200	•	•	•	•	•	•	XXXX
NyeTorr 5300	•	•	•	•	•	•	XXXX
NyeTorr 5350	•	•	•	•	•	•	XXXX
NyeTorr 5370	•	•	•	•	•	•	XXXX
NyeTorr 5380	•	•	•	•	•	•	XXXX

## SPECIFICATIONS

	TEMPERATURE RANGE (°C)	BASE OIL CHEMISTRY	BASE OIL VISCOSITY ASTM D-445 (cSt)		EVAPORATION (24 HRS, 100°C) (%)	VAPOR PRESSURE KNUDSEN (25°C) (mbar)	DENSITY (g/cc)	MICROSCOPIC PARTICULATE CONTAMINATION
			100°C	40°C				
NyeTorr 6200	-45 to 150	MAC*	14	106	0.00	4.7.10 <sup>-12</sup>	1.05	< 300 particles/cc < 35 µm
NyeTorr 6300	-75 to 250	PFPE**	56	187	0.00	4.5.10 <sup>-12</sup>	1.89	< 300 particles/cc, < 35 µm
NyeTorr 5200	-45 to 150	MAC	15	108	0.00	4.10 <sup>-12</sup>	1.05	< 300 particles/cc < 35 µm
NyeTorr 5300	-65 to 250	PFPE	45	140	0.02	6.10 <sup>-11</sup>	1.91	< 300 particles/cc < 35 µm
NyeTorr 5300XP	-65 to 200	PFPE	45	140	0.11	6.10 <sup>-11</sup>	1.85	< 300 particles/cc < 35 µm
NyeTorr 5350	-55 to 250	PFPE	28	152	0.00	1.6.10 <sup>-10</sup>	1.91	< 250 particles/cc < 35 µm
NyeTorr 5370	-70 to 250	PFPE	86	310	0.02	3.8.10 <sup>-10</sup>	1.89	< 50 particles/cc < 35 µm
NyeTorr 5380	-10 to 250	PFPE	58	800	0.00	3.10 <sup>-14</sup> (20°C)	1.91	< 100 particles/cc < 35 µm

\*MAC : Multiylated Cyclopentanes

\*\*PFPE : PerFluoroPolyEthers

## NYECLEAN 5077

The NyeClean 5077 has been developed with its focus on a wide range of general purpose applications in lower vacuum cleanroom environments. With this product, you will find a lubricant developed for motion control applications like bearings, linear guides, and ball screws. Some of the benefits of the NyeClean product line include low particle generation, wear prevention and low torque.



NyeClean 5077

	TEMPERATURE RANGE (°C)	BASE OIL CHEMISTRY	BASE OIL VISCOSITY ASTM D-445 (cSt)		EVAPORATION (24 HRS, 100°C) (%)	VAPOR PRESSURE KNUDSEN (25°C) (mbar)	DENSITY (g/cc)	MICROSCOPIC PARTICULATE CONTAMINATION
			100°C	40°C				
<b>NyeClean 5077</b>	-55 to 250	PFPE	28	152	0.02	1.6.10 <sup>-10</sup>	1.90	N/A



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