



SEMICONDUCTOR & CLEANROOM SOLUTIONS

*The most complete line of lubricants for demanding applications -
Ultra Low Outgassing, Vacuum Stability, Low Particle Generation*





Nye Comparative Chart

Lubricants for Vacuum & Cleanroom Applications

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Product Name	Temperature Range (°C)	Base Oil Chemistry	Thickener Type	Base Oil Viscosity ASTM D-445 (cSt)		NLGI Grade ASTM D-217	Oil Separation ASTM D-6184 (24 hrs, 100°C)	Evaporation (24 hrs, 100°C)	Vacuum Stability ASTM E-595 (% wt)		Base Oil Vapor Pressure Knudsen (25°C)	Density (g/cc, 25°C)	SRV Coefficient of Friction & Wear ASTM D-5707 (100N, 50 Hz, 1 mm stroke, 2 hrs, 40°C)		4-Ball Wear - ASTM D-2266 (60 min, 1200 RPM)				Low Temperature Torque ASTM D-1478 (gm-cm, -25°C)		Microscopic Particulate Contamination (FTM 791, 3005.3)	Product Name
				100°C	40°C				TML	CVCM			CoF	Ball Scar	Wear Scar		Coefficient of Friction		Starting	10-min run		
															20 kg load	40 kg load	20 kg load	40 kg load				
NyeTorr® 6200	-45 to 150	MAC	PTFE	15	108	1	3.5%	0.00%	0.058	0.025	4.7 x 10 ⁻¹² Torr	1.05	0.124	0.46 mm	0.52 mm	0.54 mm	0.030	0.091	207	263	< 300 particles/cc, <35 μm	NyeTorr® 6200
NyeTorr® 6300	-65 to 250	PFPE	PTFE	56	187	2	4.8%	0.02%	0.034	0.007	1.3 x 10 ⁻¹⁰ Torr	1.89	0.110	0.68 mm	0.95 mm	1.30 mm	0.129	0.112	221	125	< 300 particles/cc, <35 μm	NyeTorr® 6300
NyeTorr® 5200	-45 to 150	MAC	PTFE	15	108	1	2.8%	0.00%	0.132	0.032	4 x 10 ⁻¹² Torr	1.05	0.114	0.44 mm	0.50 mm	0.59 mm	0.114	0.100	221	274	< 300 particles/cc, <35 μm	NyeTorr® 5200
NyeTorr® 5300	-65 to 250	PFPE	PTFE	45	140	2	5.8%	0.02%	0.320	0.045	6 x 10 ⁻¹¹ Torr	1.91	0.159	0.68 mm	0.76 mm	1.30 mm	0.124	0.103	236	142	< 300 particles/cc, <35 μm	NyeTorr® 5300
NyeTorr® 5300XP	-65 to 200	PFPE	PTFE	45	140	2	3.1%	0.11%	0.075	0.018	6 x 10 ⁻¹¹ Torr	1.85	0.113	0.58 mm	0.81 mm	1.30 mm	0.118	0.097	207	121	< 300 particles/cc, <35 μm	NyeTorr® 5300XP
NyeTorr® 5350	-55 to 250	PFPE	PTFE	28	152	2	5.6%	0.00%	0.247	0.130	1.6 x 10 ⁻¹⁰ Torr	1.91	0.139	0.65 mm	0.44 mm	1.07 mm	0.092	0.120	221	118	< 250 particles/cc, <35 μm	NyeTorr® 5350
NyeTorr® 5370	-70 to 250	PFPE	PTFE	86	310	2	3.9%	0.02%	0.269	0.104	3.8 x 10 ⁻¹⁰ Torr	1.89	0.245	1.14 mm	0.75 mm	1.25 mm	0.111	0.097	266	177	< 50 particles/cc, <35 μm	NyeTorr® 5370
NyeTorr® 5380	-10 to 250	PFPE	PTFE	58	800	3	2.5%	0.00%	0.042	0.013	3 x 10 ⁻¹⁴ Torr (20°C)	1.91	0.219	1.22 mm	0.74 mm	1.58 mm	0.148	0.130	177	94	< 100 particles/cc, <35 μm	NyeTorr® 5380
NyeClean® 5067	-65 to 250	PFPE	PTFE	45	150	3	3.4%	0.02%	0.281	0.150	2.17 x 10 ⁻⁸ Torr	1.83	0.141	0.65 mm	0.96 mm	1.36 mm	0.064	0.106	280	189	< 1000 particles/cc, <35 μm	NyeClean® 5067
NyeClean® 5077	-55 to 250	PFPE	PTFE	28	152	2	5.9%	0.02%	0.812	0.067	1.6 x 10 ⁻¹⁰ Torr	1.90	0.135	0.47 mm	0.59 mm	1.56 mm	0.085	0.118	177	96	N/A	NyeClean® 5077
NyeClean® 5087	-40 to 250	PFPE	PTFE	200	700	2	3.3%	0.03%	0.612	0.088	2.5 x 10 ⁻¹⁰ Torr	1.90	0.211	1.13 mm	0.58 mm	1.66 mm	0.117	0.115	89	41	< 1000 particles/cc, <35 μm	NyeClean® 5087
NyeClean® 5088	-10 to 250	PFPE	PTFE	58	800	2.5	1.7%	0.00%	0.039	0.022	1 x 10 ⁻¹³ Torr	1.91	0.364	1.29 mm	1.06 mm	1.47 mm	0.167	0.121	295	162	< 500 particles/cc, <35 μm	NyeClean® 5088

The typical properties shown on this document should not be used as a basis for preparing specifications.



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ISO 9001:2008
ISO 13485:2003
ISO 14001:2004
ISO/TS-16949:2009