



# NyeTorr® 5200 High Vacuum Applications

*Intended for high vacuum, semiconductor manufacturing equipment applications that require very low vapor pressure, good lubricity and film strength.*

## PRODUCT OVERVIEW

NyeTorr® 5200 is a soft, PTFE thickened, medium viscosity, Multi-alkylated Cyclopentane (MAC) grease. This ultrafiltered grease is intended for semiconductor manufacturing equipment, such as linear guides, ball screws and lead screws.

## PACKAGING OPTIONS

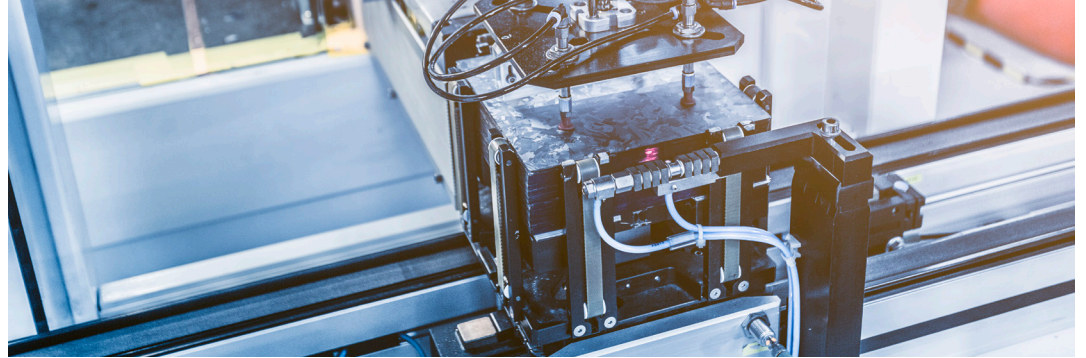
NyeTorr® 5200 is available in:

- 10 cc and 30 cc white syringe
- 30 cc and 55 cc clear syringe
- 500 g and 1 kg jar

If your application requires a specific container, please contact us for custom packaging.

## SAMPLES

NyeTorr® 5200 samples are now available. Contact your Regional Engineering Manager to discuss your application specifications.



## CHARACTERISTICS

- Good lubricity performance
- Excellent vacuum stability
- Low outgassing
- Extremely low particle generation
- Low vapor pressure

## LUBRICANT PROPERTIES

Properties		NyeTorr® 5200	Test Method
Chemistry		MAC / PTFE	
Temperature Range		-45 to 150°C	
Color/Appearance		White, Smooth	
Kinematic Viscosity	40°C	108 cSt	ASTM D-445
Evaporation	24 hrs, 100°C	0%	CTM-1
Oil Separation	24 hrs, 100°C	2.8%	ASTM D-6184
Penetration (1/10mm)	Worked (60x)	322	ASTM D-217
	Unworked	310	
	NLGI Grade	1	

## TEST RESULTS FOR SEMICONDUCTOR INDUSTRY

- **Dynamic Particle Generation:** ISO Class 3
- **Knudsen Vapor Pressure (25°C):**  $4 \times 10^{-12}$  torr
- **Vacuum Stability (ASTM E-595):**
  - Total Mass Loss = 0.068 wt %
  - CVCM = 0.007 wt %
- **SRV (ASTM D-5707):**
  - Coefficient of Friction = 0.114
  - Ball Wear Scar = 0.44 mm

NyeTorr® 5200, a MAC-based grease, is a specialized fluid that combines the low vapor pressure and low outgassing of a PFPE, with the lubricity and film strength of a PAO, therefore making it ideal for use in critical vacuum applications.



**Since 1844: Our performance is reflected in the value we bring to our customers.**

Nye Lubricants is a leader in the innovation, formulation and provision of synthetic lubricants, enabling and improving breakthrough products and critical new technologies. We bring proven experience, deep technical knowledge and customer focus to solve our customers' toughest challenges, adding tangible value to products in a wide range of industries and applications.

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