

MILLION GREASE/DIE CLEANING AGENT/DIE CONTACT INSPECTION AGENT

— POLYUREA EP GREASE/GENERAL PURPOSE QUICK-DRYING TYPE/SHINMYOTAN —

MILLION GREASE (Polyurea EP grease) **RoHS**
MGS—80 (80g)
MGS—400 (400g)

Material name	Composition ratio
Base oil: refined mineral oil	Approx. 75%
Thickener: polyurea	Approx. 10%
Additive	Approx. 15%

Application

- For lubrication of guide units of punch die and forming die.
- For lubrication of mechanical sliding part.

Features

- It is a polyurea EP grease composed of molybdenum, EP additive, polymer, antioxidant and antirust agent, which uses polyurea EP thickener and refined mineral oil having good thermal stability as its base oil.
- It has superior oxidation stability, water-proof performance, adhesiveness, heat resistance, mechanical stability, and particularly excellent extreme pressure (EP) property due to specially added molybdenum.
- Because special polymer is added, it is highly adhesive, waterproof and retentive so that it can be applied to where grease dips easily (such as vertical sliding surface).

Precautions for use

- Inflammation may occur if it enters eyes, be sure to wear goggles when it is used.
- Skin contact may cause inflammation, be sure to wear protective gloves when it is used.
- Be sure to wear protective gloves in order to prevent hands from being hurt by container falling-down.

Be sure to read above-mentioned precautions before use.

Cleaning agent —General-purpose quick-drying type— **RoHS**
6PACK—METACL
(Pack containing 6 cans)

Material safety data sheet	Cans per pack	Catalog No.		Base unit price	Volume discount unit price		
		Type	Volume (mL)		1 pack	2 pack	3 packs or more
1009	6 cans	6PACK—METACL	420		Quotation		

- 6PACK—METACL420 is sold only in packs.
- For larger orders, ask about prices/delivery.

Order **Catalog No.** **6PACK—METACL 420** Days to Ship **Quotation**

Application

- Washes off oil, grease, and other dirt by means of a chemical cleaning agent and strong gas pressure. Evaporates quickly after use, leaving nothing behind.
- Can be used for degreasing prior to Loctite application.

Die inspection agent (Shinmyotan) **RoHS**
N—RED **SP—RED**

Fluid color	Main ingredient	Material safety data sheet FAX BOX No.	Catalog No.		Base unit price	Volume discount unit price		
			Type	Volume (mL)		1~4 pieces	5~9	10 or more
Orange	Zinc oxide	1044	N—RED	250		Quotation		
Orange	Petroleum hydrocarbon	1043	SP—RED	250		Quotation		

Application

- Used for aligning a die after product machining. Contains no zinc.
- Can be used straight from the container, eliminating the need to blend the agent with oil.
- SP—RED spreads more easily than N—RED, allowing it to be applied in a thinner layer.

Order **Catalog No.** **N—RED 250** Days to Ship **Quotation**

DIE ADHESIVE

— LOCTITE No. 638·243·268·248 —

For fitting (high strength) RoHS	For loosening prevention of threads (Medium strength) RoHS	For loosening prevention of threads —Stick type— RoHS	
Loctite No. 638 (High strength)	Loctite No. 243 (Medium strength)	Loctite No. 268 (High strength)	Loctite No. 248 (Medium strength)
LOC638	LOC243	LOC268	LOC248
(250mL) (50mL)	(250mL) (50mL)		

Fluid color	Main ingredient	Viscosity (CP)	Strength Class	Strength	Maximum allowable clearance (mm)	Hardening time ^{Note(2)} (h at room temp.)		Service temperature range (°C)	Material safety data sheet FAX BOX No.	Catalog No.		Base unit price
						Active surface	Inert surface			Type	Volume (mL)	
Green	Anaerobic resin	2500	High strength	Shear strength 25each side (N/mm ²)	Max. 0.2 each side ^{Note(1)}	1 ~ 3	3 ~ 6	-55 ~ 125	1034	LOC638	250 50	Quotation
Blue		2150	Medium strength	Breakage/pull-out torque 26/5 (N/m)	Max. 0.25 each side				1035	LOC243	250 50	
Green		2500	High strength	Return torque 40.8N·m (DIN54454)	—	—	—	-55 ~ 150	1083	LOC268	19	
Green		2500	Medium strength	Return torque 15.6N·m (DIN54454)	—	—	—		1081	LOC248		

Applications

- LOC638:** Fitting (high strength)
 - Can be used as an adhesive for items such as dowel bushings (KNLB·KNLBB), die set bushings (LBB·LDB), and stripper guide bushings (SGBL·SGBZ·SGHZ·SGBF·SGFZ).
- LOC243:** For loosening prevention of threads (medium strength)
 - Can be used as an adhesive for items such as hexagon socket head cap screws (CB), screw plugs (MSW), and stripper bolts with male threads (MSB).
- Stick type**
 - This is a compact stick type, and because it is semi-solid it does not drip.
- LOC268:** For loosening prevention of threads (high strength)
 - Can be removed by localized heating or the use of a tool. Prevents thread loosening caused by vibration, impact, thermal expansion, or other factors.
- LOC248:** For loosening prevention of threads (medium strength)
 - Can be removed by the use of a tool.

Notes

- In general when press-fitting die components, 0.01~0.03 mm of adhesive is used on each side.
 - This is the time required until a serviceable strength (50% hardening) is reached at room temperature. Active surfaces are steel, copper alloys, aluminum alloys, and similar surfaces. Inert surfaces are stainless steel, zinc, heat-curing resins, plated surfaces, and similar surfaces.
- ⚠ Degreasing is recommended before application of Loctite adhesives.

Order **Catalog No.** **LOC638** — **Amount** **LOC243** — **50** **LOC268** — **19** **LOC248** — **19** Days to Ship **Quotation** Price **Quotation**