

9. HIWIN GREASE

9.1 HIWIN G01 Heavy-load Grease

• Features

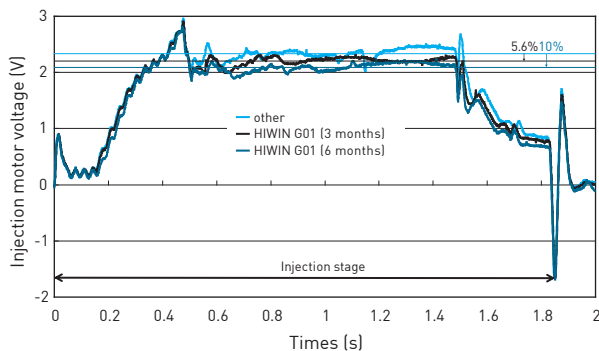
1. Excellent wear resistance and extreme pressure resistance under heavy load conditions.
2. Low friction in low temperatures.
3. Water resistant.
4. Can be applied by a central lubrication system.
5. Suitable for all-electric injection molding machine, die-stamping machines, semi-conductor manufacturing equipment, heavy load actuator, industry machine and forging machine.

• Basic Properties

		HIWIN G01
Color		Light yellow
Base Oil		Mineral oil
Consistency Enhancer		Polyurea
Additive		Solid lubricant
Service Temp. (°C)		-15~115
NLGI-grade (0.1mm)		310-340
Viscosity (cst)	40°C	500
	100°C	30
Drop Point (°C)		> 170
4-ball test	Load on boundary lubrication when 900rpm (N)	>1700
	Load on boundary lubrication when 1770rpm (N)	>1300

	HIWIN G01	other	Note	
Property of anti extreme pressure	●	▲	4-ball test 900rpm	42% more
			1770rpm	30% more
Anti wear	●	▲	4-ball test 80kgf 30rpm	23% more
Low friction	●	▲	Injection motor votage	10% lower
Water resistance	●	●		
Rust proof	●	●	Corrosion on copper test	
Service temperature range	-15 ~115	-20 ~130		

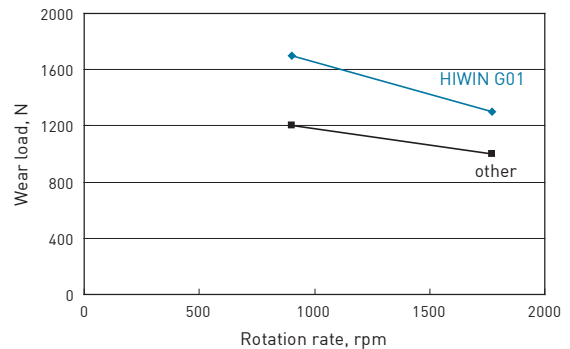
• All-electric injection molding machine(80ton) — motor driving voltage of injection unit BS



• Test of Resistance to Extreme Pressure

Test Condition and Measurement

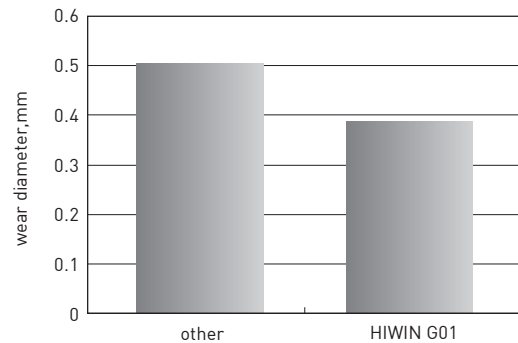
Ball diameter	1/2 in
Temperature	27°C
Test time	10 sec
Rotational speed	900 \cdot 1770 rpm
measurement	Load when ball wear diameter become 500 μm



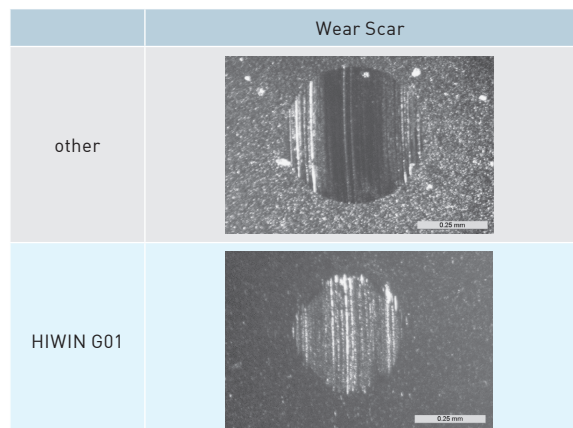
• Test of Anti-wear

Test Condition and Measurement

Ball diameter	1/2 in
Temperature	75°C
Test time	60 min
Rotational speed	30 rpm
load	80 kgf
measurement	Wear diameter of ball contact point



Comparison of wear diameter



Comparison of wear scar