

HIWIN G01 Grease for Heavy Load Condition

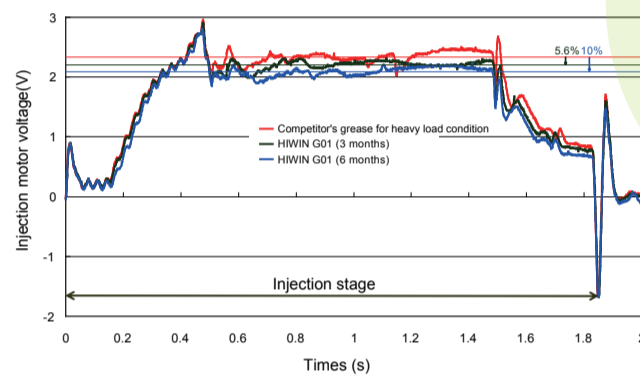
Features

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 Temperature Range (°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

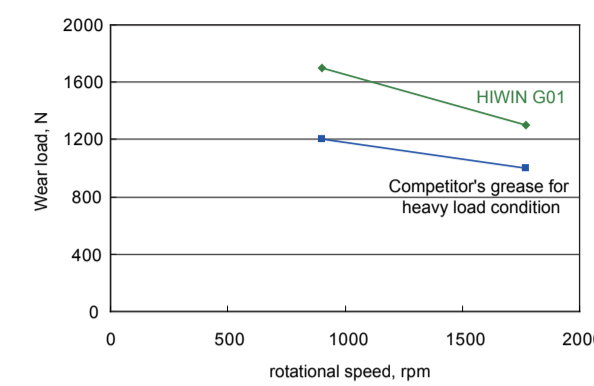
All-electric injection molding machine(80ton) – motor driving voltage of injection unit BS



Test of Resistance to Extreme Pressure

Test Condition and Measurement

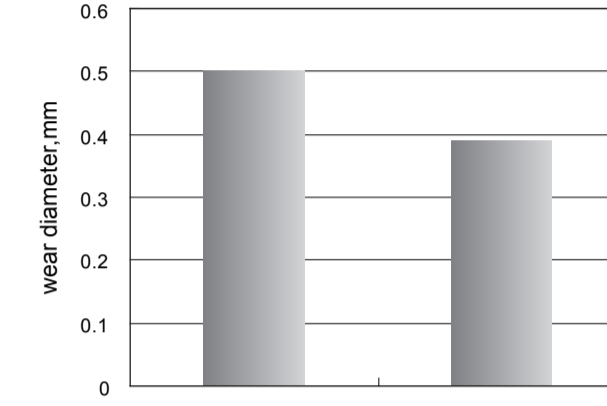
Ball diameter	1/2 in
Temperature	27°C
Test time	10 sec
Rotational speed	900 · 1770 rpm
measurement	Load when ball wear diameter become 500µm



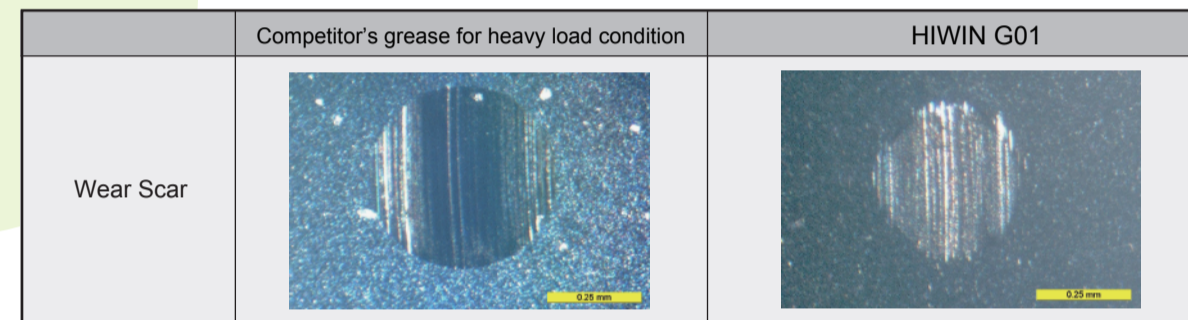
Test of Anti-wear

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

HIWIN G02 Grease with low dust generation

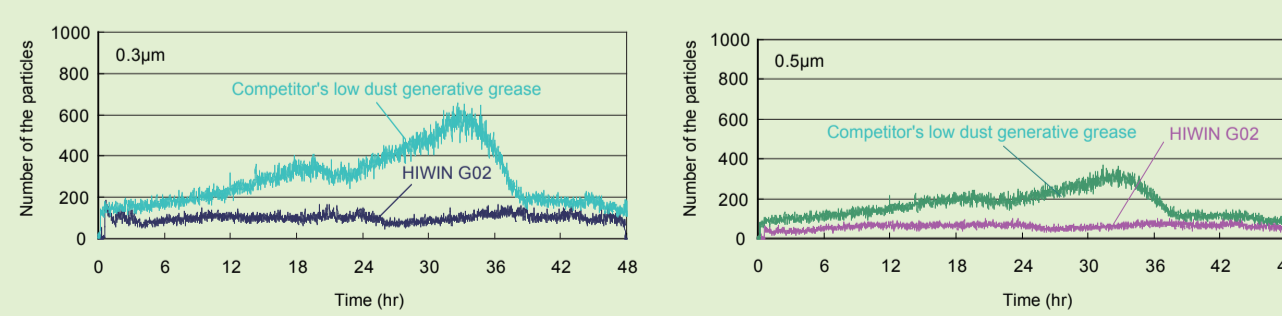
Features

1. Low dust generation, suitable for clean room environment
2. Wear resistant
3. Long term grease, suitable for wide temperature range
4. Consists of synthetic hydrocarbon oil and special calcium soap. resistant to oxidation and ageing
5. Can be used in plastic/steel and plastic/plastic components, compatible with elastomers and plastic materials

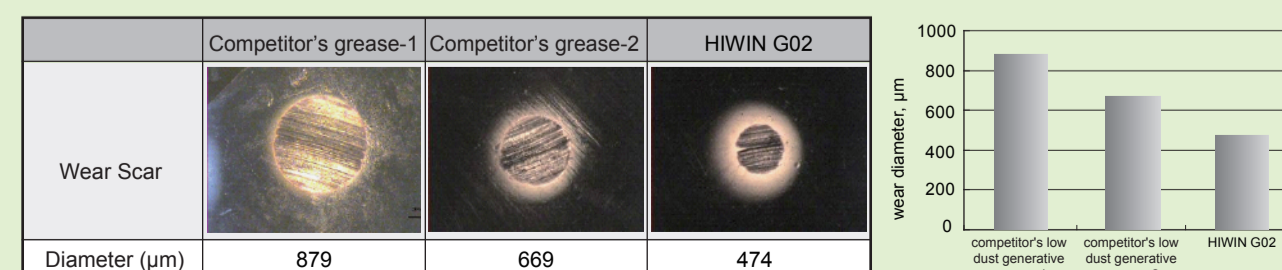
Basic Properties

		HIWIN G02
Color		Beige
Base Oil		Synthetic hydrocarbon oil
Viscosity Enhancer		Special calcium soap
Service Temperature Range (°C)		-30~140
NLGI-grade (0.1mm)		265-295
Viscosity (cSt)	40°C	100
	100°C	15
Drop point (°C)		>180
4-ball test (ASTM D2266)		474µm

Dust generation



4-ball test (ASTM D2266)



HIWIN G03 Grease with low dust generation for High Speed Condition

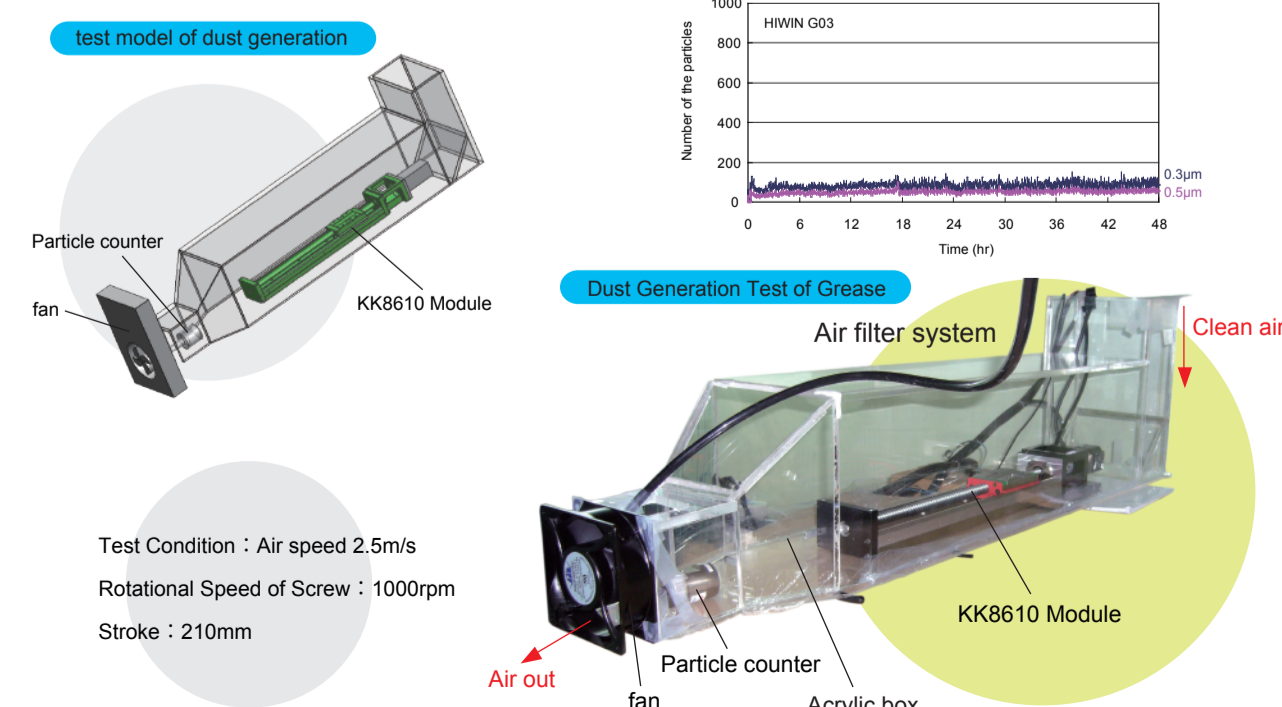
Features

1. Low dust generation characteristics and suitable for clean room environment
2. Wear resistant under high speed conditions
3. Long term grease, well wear resistance under high speed conditions
4. Low starting and running torques particularly at low temperatures, to ensure high efficiency and conserve energy
5. compatible with plastic components

Basic properties

		HIWIN G03
Color		Beige
Base oil		Synthetic hydrocarbon oil
Consistency enhancer		Special calcium soap
Service temperature range (°C)		-45~125
NLGI grade (0.1mm)		265-295
Viscosity (cSt)	40°C	30
	100°C	5.9
Drop point (°C)		>210
4-ball test (ASTM D2266)		366µm

Dust generation



HIWIN Grease' Capacity



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GREASE

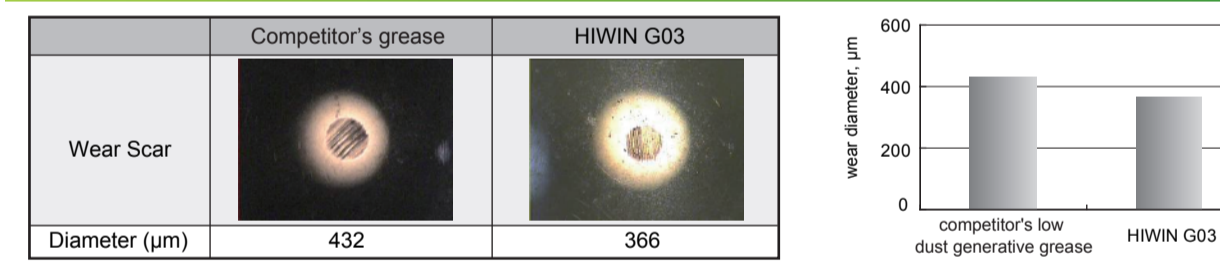
NEW

- Hiwin G01- Grease for Heavy Load Condition
- Hiwin G02- Grease with low dust generation
- Hiwin G03- Grease with low dust generation for High Speed Condition
- Hiwin G04- Grease for High Speed Condition
- Hiwin G05- Grease for general purpose

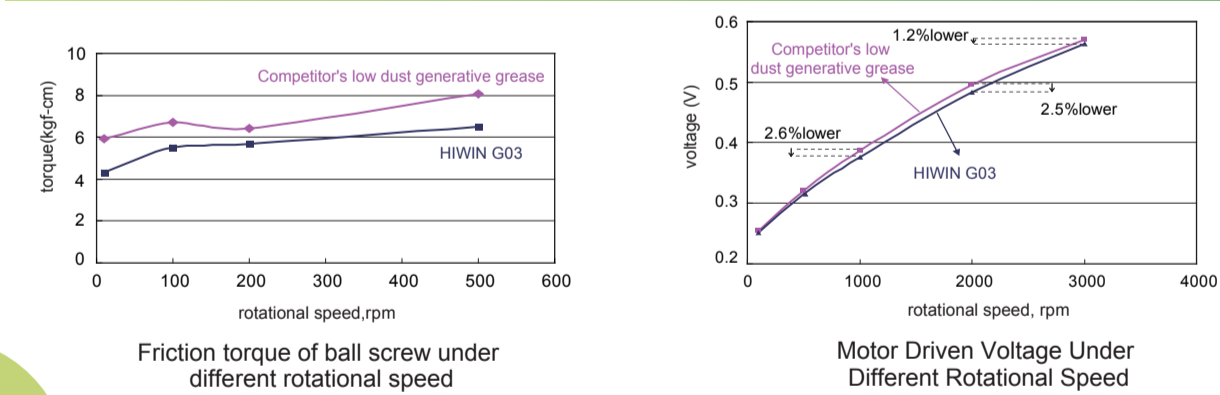


Linear Motion Products & Technology

4-ball test (ASTM D2266)



Wear resistance



HIWIN G04 Grease for High Speed Condition

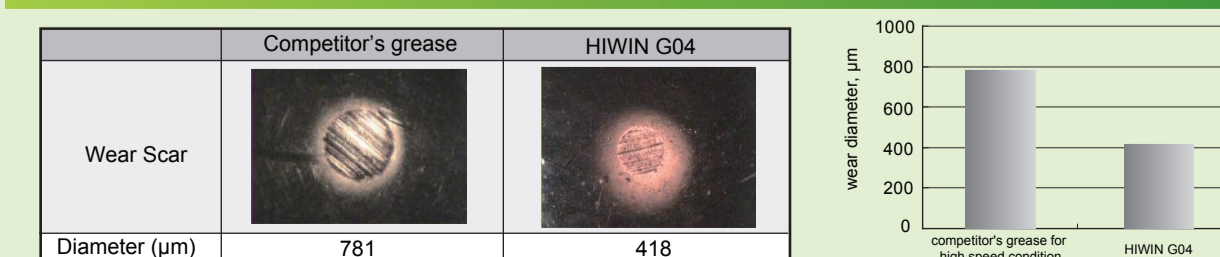
Features

1. Wear resistant under high speed conditions
2. Low friction force under high speed conditions
3. Water resistant

Basic Properties

		HIWIN G04
Color		Beige
Base Oil		Ester/PAO
Consistency enhancer		Lithium soap
Service temperature range (°C)		-35 to 120
NLGI grade (0.1mm)		260 – 280
Viscosity (cSt)	40°C	25
	100°C	6
Drop Point (°C)		>225
4-ball test (ASTM D-2266)		418µm

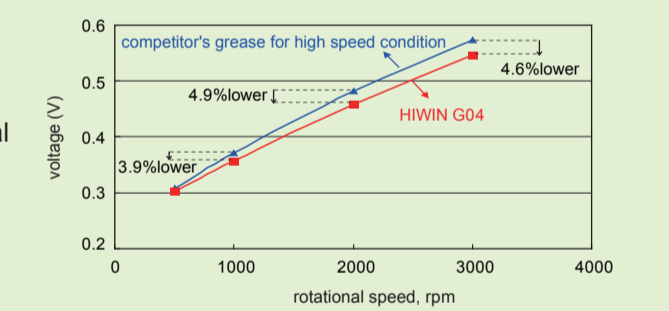
4-ball test (ASTM D2266)



Wear Resistance

Screw Type : 40-10

Test Condition : motor driven voltage by different grease and rotational speed



HIWIN G05 Grease for general purpose

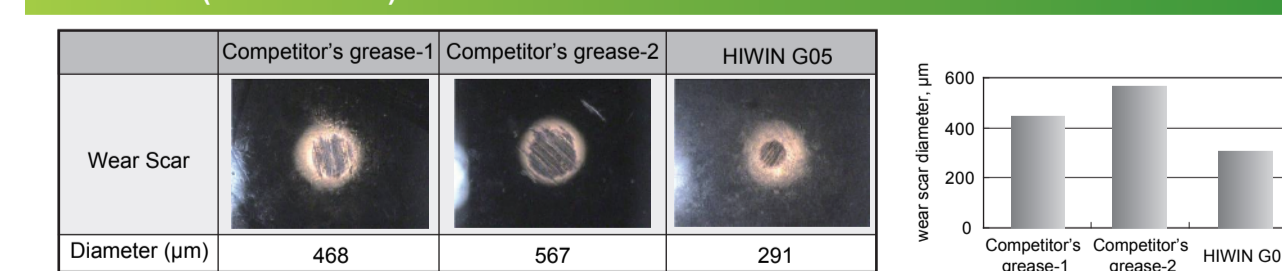
Features

1. well wear resistance under general conditions
2. low friction resistance under general conditions
3. long-life
4. stable to oxidation
5. water-resistant
6. protects against corrosion

Basic Properties

		HIWIN G05
Color		Brown
Base Oil		Mineral
Consistency enhancer		Lithium soap
Service temperature range (°C)		-15 to 120
NLGI grade		2
Viscosity (cSt)	40°C	200
	100°C	190
Drop Point (°C)		190
4-ball test	Wear scar diameter (µm) (ASTM D-2266)	291
	Welding load (N) (DIN 51350-4)	2600/2800

4-ball test (ASTM D2266)



Friction resistance

Screw diameter : 40mm

lead : 10mm

