

THK原創潤滑脂 AFG潤滑脂

- 基礎油：高級合成油
- 增稠劑：尿素基



AFG潤滑脂是以高級合成油作為基礎油，藉由使用尿素基增稠劑，使其擁有優異的低發熱特性，從低溫到高溫的廣泛溫度範圍皆可因應，是用於滾珠螺桿的高級潤滑脂。

【特徵】

- (1) 低發熱
由於黏性阻力低，因此即使在高速使用下也能抑制發熱。
- (2) 低扭矩性
由於基礎油運動黏度較低，因此最適合用於滾珠螺桿。
- (3) 耐水性
不易因水分流入而造成軟化或極端壓力耐受性降低，是不易受到水影響的潤滑脂。

【代表性物理特徵】

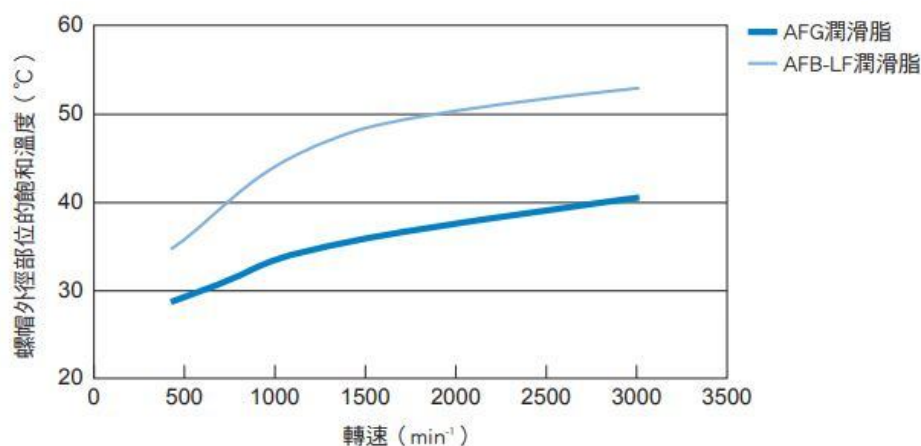
項目	代表性物理特徵值	試驗方法
增稠劑	尿素類	
基礎油	高級合成油	
基礎油運動黏度：mm ² /s (40°C)	25	JIS K 2220 23
針入度 (25°C, 60W)	285	JIS K 2220 7
混和穩定性 (10萬W)	329	JIS K 2220 15
滴點：°C	261	JIS K 2220 8
蒸發量：mass% (99°C, 22h)	0.2	JIS K 2220 10
離油度：mass% (100°C, 24h)	0.5	JIS K 2220 11
銅板腐蝕 (B法, 100°C, 24h)	合格	JIS K 2220 9
低溫扭矩：mN·m (-20°C)	起動	170
	運轉	70
4滾珠試驗 (熔接負荷)：N	3089	ASTM D2596
使用溫度範圍：°C	-45~160	
外觀顏色	褐色	

【低發熱特徵的試驗資料】

〈試驗條件〉

項目	內容
試驗品	SBN3210-7RRG0+1094LC5 (僅預壓)
轉速	400~3000min ⁻¹
潤滑脂封入量	12cm ³ (僅初始封入)
溫度測量位置	螺帽外徑部位

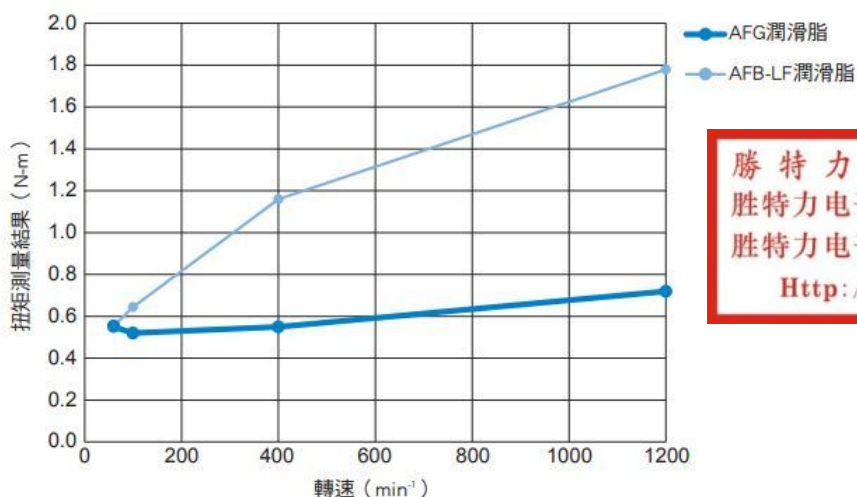
勝特力材料 886-3-5753170
 胜特力电子(上海) 86-21-34970699
 胜特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



【滾珠螺桿扭矩資料】

〈試驗條件〉

項目	內容
試驗品	SBN3210-7RRG0+1094LC5 (僅預壓)
轉速	2~1200min ⁻¹
潤滑劑封入量	13cm ³ (僅初始封入)



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THK Original Grease

AFG Grease

- Base oil: high-grade synthetic oil
- Consistency enhancer: urea-based



AFG Grease is a high-grade grease for ball screws that uses high-grade synthetic oil as its base and a urea-based grease as its consistency enhancer. This ensures that it has superior low heat-generating properties, allowing for use over a wide temperature range—from low to high temperatures.

[Features]

- (1) Low heat generation
Since the viscous resistance is low, the grease generates only a minimal level of heat even during high-speed operation.
- (2) Low torque properties
Features a low base oil kinematic viscosity, making it ideal for ball screws.
- (3) Water resistance
AFG Grease is a highly water-resistant grease that is less vulnerable to softening and reductions in extreme pressure resistance due to moisture penetration.

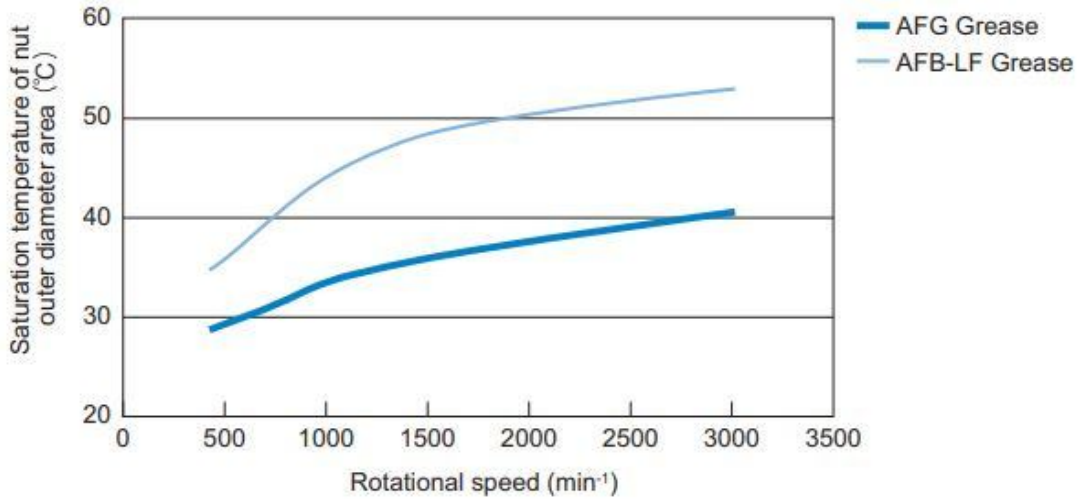
[Representative Physical Properties]

Item	Representative value	Test method
Consistency enhancer	Urea-based	
Base oil	High-grade synthetic oil	
Base oil kinematic viscosity: mm ² /s (40°C)	25	JIS K 2220 23
Worked penetration (25°C, 60 W)	285	JIS K 2220 7
Mixing stability (100,000 W)	329	JIS K 2220 15
Dropping point: °C	261	JIS K 2220 8
Evaporation amount: mass% (99°C, 22 h)	0.2	JIS K 2220 10
Oil separation rate: mass% (100°C, 24 h)	0.5	JIS K 2220 11
Copper plate corrosion (B method, 100°C, 24 h)	Accepted	JIS K 2220 9
Low-temperature torque: mN·m (-20°C)	Starting	JIS K 2220 18
	Rotational	
4-ball testing (welding load): N	3089	ASTM D2596
Service temperature range: °C	-45 to 160	
Color	Brown	

[Low Heat Generation Test Data]

Test conditions

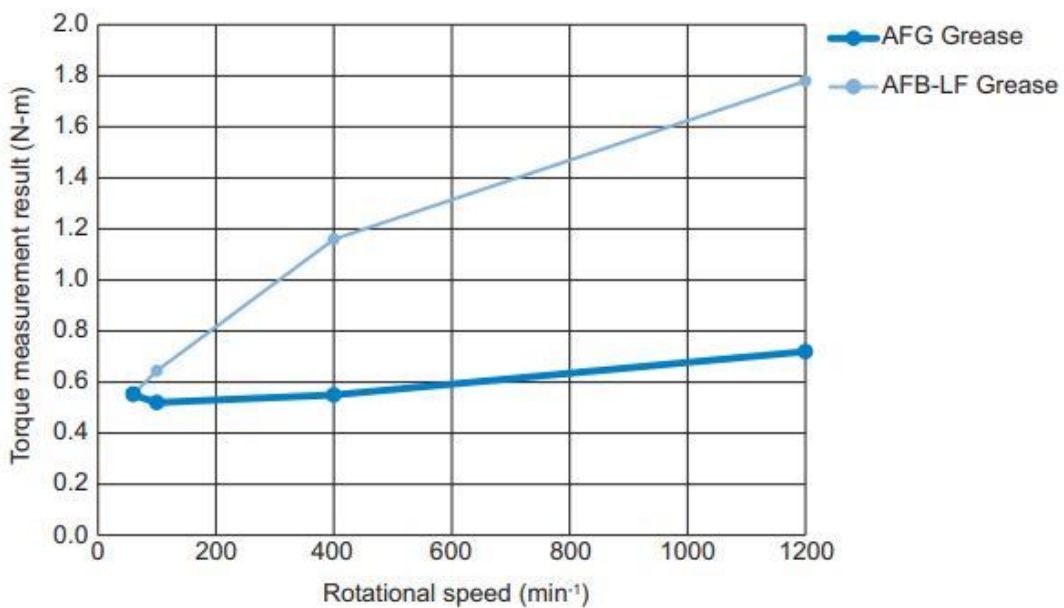
Item	Description
Tested model	SBN3210-7RRG0+1094LC5 (Pre-load only)
Rotational speed	400 to 3000 min ⁻¹
Grease quantity	12 cm ³ (initial lubrication only)
Temperature measurement point	Nut outer diameter area



[Ball Screw Torque Data]

Test conditions

Item	Description
Tested model	SBN3210-7RRG0+1094LC5 (Pre-load only)
Rotational speed	2 to 1200 min ⁻¹
Amount of lubricant injected	13 cm ³ (initial lubrication only)



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