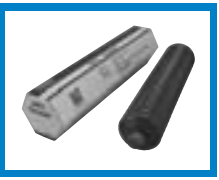
THK Original Grease

# AFC Grease

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



AFC grease uses high-grade synthetic oil as its base and a urea-based grease as its consistency enhancer, while also featuring special additives. This gives it excellent fretting resistance.

**[Features]**

(1) Fretting resistance
It is designed to be highly effective in preventing fretting corrosion.

(2) Wide temperature range
Since a high-grade synthetic oil is used as the base oil, the lubricating performance remains high over a wide range of temperatures, from −54℃ to 177℃.

**[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℃) | | 25 | JIS K 2220 23 |
| Worked penetration (25℃, 60 W) | | 288 | JIS K 2220 7 |
| Mixing stability (100,000 W) | | 341 | JIS K 2220 15 |
| Dropping point: ℃ | | 269 | JIS K 2220 8 |
| Evaporation amount: mass% (99℃, 22 h) | | 0.2 | JIS K 2220 10 |
| Oil separation rate: mass% (100℃, 24 h) | | 0.6 | JIS K 2220 11 |
| Copper plate corrosion (B method, 100℃, 24 h) | | Accepted | JIS K 2220 9 |
| Low-temperature torque: mN-m (−20℃) | Starting | 160 | JIS K 2220 18 |
| | Rotational | 68 | |
| 4-ball testing (welding load): N | | 3089 | ASTM D2596 |
| Service temperature range: ℃ | | −54 to 177 | |
| Color | | Brown | |

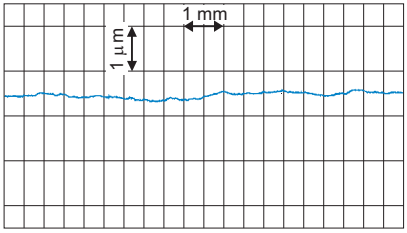
## [Fretting Resistance Test Data (Comparison of Raceway Conditions)]

Test conditions

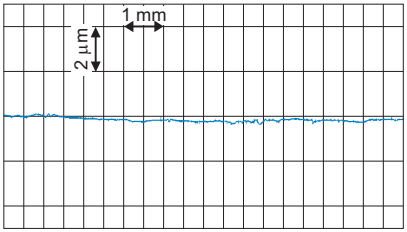
| Item | Description |
|---|---|
| Stroke | 3 mm |
| Number of strokes per minute | 200 $min^{-1}$ |
| Total number of strokes | $2.88 \times 10^5$ (24 hours) |
| Surface pressure | 1118 MPa |
| Grease quantity | 12 $cm^3$ (replenished every 8 hours) |

### AFC Grease

Pre-travel

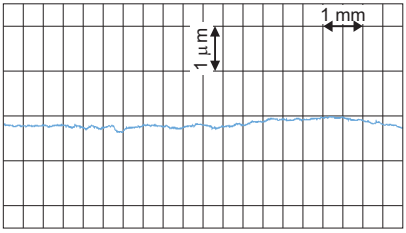



Post-travel




### General bearing grease

Pre-travel




Post-travel