Product Information



Pure, Nonstaining Lubricant Provides Reliable Water-Resistant Protection for Food Equipment

LE's H1 Quinplex® White Oil (4010-4040) is an NSF H1 registered lubricant designed to use in food processing equipment where incidental contact may occur or where a clean, nonstaining lubricant is required. It contains Quinplex, LE's proprietary impact-resistant additive, and is superior to competitive products in oxidation and wear resistance. It reliably extends asset life and decreases the likelihood of expensive unplanned downtime – crucial with high-capital, continuous process equipment.

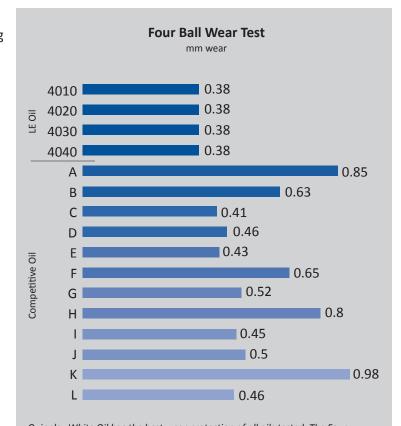
Beneficial Qualities

Food Grade

- Pure, nonstaining, odorless, tasteless, clear and nonirritating lubricant
- Can be used with confidence where incidental food contact or staining can occur
- · Registered NSF H1
- Certified Kosher Pareve
- Certified Halal by IFANCA

Superior Protection

- Is tacky and clings to metal surfaces
- Provides crucial water resistance
- Prevents rust and corrosion
- Provides anti-wear protection
- Has nonfoaming characteristics



Quinplex White Oil has the best wear protection of all oils tested. The Four Ball Wear Test (ASTM D4172) determines the wear preventative properties of lubricants, which are based on the average size of the scar diameters worn in the three lower balls after rotation of the upper fourth ball in the test. Smaller wear scars indicate better wear protection.

Proprietary Additive

LE's proprietary additives are used exclusively in LE lubricants. H1 Quinplex White Oil contains Quinplex.

Quinplex® impact-resistant additive contributes to outstanding water resistance, tackiness and enhanced mechanical stability, and helps to form a barrier against corrosion.



Technical Data



H1 Quinplex® White Oil

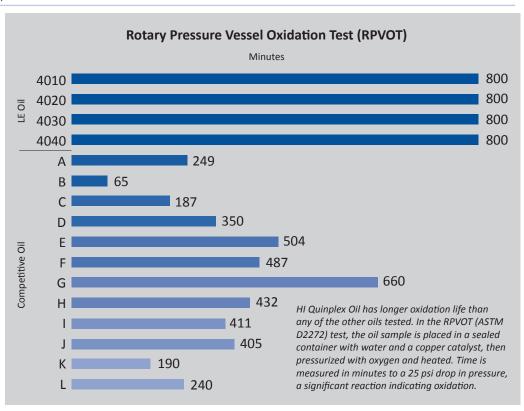
	<u>4010 </u>	<u>4020 </u>	<u>4030</u>	4040_
Color	Amber	Amber	Amber	Amber
SAE Grade / ISO VG	10 / 46	20 / 68	30 / 100	40 / 150
Relative Density @ 60°F/60°F, ASTM D1298	0.860	0.874	0.880	0.876
Viscosity @ 100°C, cSt, ASTM D445	6.82	8.95	11.46	16.50
Viscosity @ 40°C, cSt, ASTM D445	45.37	67.33	98.01	157.36
Viscosity Index ASTM D2270	105	107	104	111
Flash Point °C (°F), (COC), ASTM D92	204 (399)	216 (421)	227 (441)	221 (430)
Pour Point °C (°F), ASTM D97	-36 (-33)	-30 (-22)	-30 (-22)	-30 (-22)
Rust Test 4 hrs @ 60°C, DI H ₂ O, ASTM D665A	Pass	Pass	Pass	Pass
Copper Corrosion 3 hrs @ 100°C, ASTM D130	1b	1b	1b	1b
Oxidation by RPVOT @ 150°C, minutes, ASTM D2272	800	800	800	800
Four-Ball Wear @ 75°C, 1,200 rpm, 40 kgf, 60 minutes, mm wear, ASTM D4172	0.38	0.38	0.38	0.38
Emulsion Characteristics @ 54°C, oil-water-emulsion/minutes, ASTM D1401	40-40-0/10	40-40-0/10	-	-
Emulsion Characteristics @ 82°C, oil-water-emulsion/minutes, ASTM D1401	-	-	40-40-0/10	40-40-0/10
Foaming Characteristics @ 24°C/93.5°C/24°C, 3 sequences, ml of foam/time to break, ASTM D892	0/0; 0/0; 0/0	0/0; 0/0; 0/0	0/0; 0/0; 0/0	0/0; 0/0; 0/0

Performance Requirements Met or Exceeded

- Halal
- Kosher Pareve
- NSF H1
- Angelus Sanitary Can Machine (4020-4040)
- Ex-Cell-O Corp Pure-Pak Machine (4030)
- Hydreco (4010)

Typical Applications

 Bearings, bushings, slides, guides, chains, compressors, valves, vacuum pumps, and hydraulic systems used in food processing equipment and other applications requiring a food grade or nonstaining lubricant.



 $\operatorname{\mathsf{Quinplex}}\nolimits \mathbb{B}$ is a registered trademark of Lubrication Engineers, Inc.

LI30029 rev. 6-20