



LE PRODUCTS
 MANUFACTURED
 UNDER AN ISO
 9001:2000
 CERTIFIED QUALITY
 SYSTEM

4090-4250 QUINPLEX® WHITE GEAR LUBRICANT

These USDA Authorized H1 and NSF Registered Lubricants are designed for use in all gearbox applications, including worm gears, where superior anti-wear, rust & oxidation resistant properties and H1 performance is desired.

These incidental food contact approved gear oils are formulated to withstand severe loading and provide excellent corrosion prevention. They contain a blend of mineral and synthetic base stocks to provide superior protection at a variety of operating temperatures. For good metal adhesion, they contain shear stable polymeric tackifiers including QUINPLEX®, LE's proprietary additive. The H1 base fluids plus additives provide unmatched protection in heavily loaded food processing gear applications.

USER BENEFITS:

- **USDA "H1" Performance** - Perhaps the most critical requirement imposed on any lubricant. These extremely pure, non-staining, odorless, tasteless, translucent and non-irritating lubricants can be used with confidence where incidental food contact or staining can occur.
- **Increased Productivity** - Through extended equipment life and less downtime. This is crucial with high capital, continuous process equipment. Downtime cost can often be devastating when production schedules must be changed, delayed or cancelled.
- **Superior Anti-Wear Performance** - Provides a margin of safety with superior anti-wear properties. Many white oils do not offer this measure of wear protection, since anti-wear additives are not included.
- **One source for your H1 Lubricants** - Three versatile products for many different applications provide viscosity ranges to satisfy your requirements.

4090	SAE 90	ISO 220
4140	SAE140	ISO 460
4250	SAE 250	ISO 680
- **Certified Kosher Pareve/Passover**



TYPICAL APPLICATIONS

Applications where incidental food contact may occur:

- > Slides
- > Guides
- > Chains
- > Valves
- > Bearings
- > Gearboxes
- > Open gears
- > Conveyor chains
- > Worm gear applications

WHAT IS QUINPLEX®?

QUINPLEX is LE's exclusive proprietary additive created through LE's own R & D staff. This study was started in Europe and adapted by LE to Lubricant Technology thus providing yet another in a long series of unique LE contributions to the field of Lubrication. Quinplex imparts three important characteristics to 4090, 4140, 4250:

- (1) Water Resistance
- (2) Tackiness (clingability)
- (3) Forms a barrier against corrosion and rust.

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TECHNICAL DATA

PHYSICAL CHARACTERISTICS - TYPICAL:

	<u>4090</u>	<u>4140</u>	<u>4250</u>
ISO Grade	220	460	680
SAE Grade	90	140	250
Viscosity			
SUS @ 100°F	1147	2347	3668
SUS @ 210°F	91	145	221
cSt @ 40°C	217	459	682
cSt @ 100°C	19.3	29.7	44.7
Gravity, °API, ASTM D287	26.7	26.7	26.5
Flash Point, °F (°C)	393 (201)	391 (200)	428 (220)
Pour Point, °F (°C)	5 (-15)	5 (-15)	10 (-12)
Color	White	White	White

PERFORMANCE TEST REQUIREMENTS:

Rust Test, ASTM D655B	Pass	Pass	Pass
Cu Corrosion, ASTM D130 @ 100°C	1b	1b	1b
Foam Test, ASTM D892	None	None	None
Emulsion, ASTM D2711			
% Oil in Water	0.20	0.20	.11
Water Separation (ml)	90	90	90
Total Emulsion (ml)	0.20	0.20	.10
Four Ball EP, ASTM D2783			
Weld Point, Kg	160	160	160
LWI	32	32	32
Four Ball Wear, ASTM D4172, 40 Kg, mm wear	0.39	0.39	0.36



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