Product Information

Pyroshield® Syn Kiln Lubricant (9020)

Synthetic Oil Protects Slow-Moving, Straight-Cut Open Gears

Pyroshield® Syn Kiln Lubricant is a heavy-duty synthetic fluid designed to provide exceptional protection for high-load, heavy-shock, high-heat applications, particularly large shrouded and unshrouded open gears servicing kilns and ball mills in the mining, mineral processing and cement industries. It is recommended for slow-moving, straight-cut gear sets where flaking occurs using a conventional open gear lubricant. Pyroshield Syn Kiln Lubricant is non-asphaltic and formulated with a synergistic mix of extreme pressure and wear-reducing additives, including solid particles of fine graphite and of Almasol®, LE's exclusive wear-reducing solid additive.



Beneficial Qualities

Exceptional Gear Protection

- Contains solid particles of fine graphite and Almasol for high load-carrying capacity
- Exhibits exceptionally high film strength, helpful for withstanding high-load, heavy-shock applications even at increased operating temperatures
- Creates layer of solids to protect metal surfaces, preventing destructive metal-to-metal contact
- Reduces gear temperatures by 5% to 15%
- Clings tenaciously to metal surfaces
- Reduces gear noise
- Carries 95-lb Timken OK load

Environmentally Friendly

- Contains no lead
- Can be disposed of like other nonhazardous petroleum oils

Easy To Use

- Does not require equipment to be shut down during conversion
- Can be applied manually or through automatic spray systems

Cost Effective

- Performs better and lasts longer than competitive lubricants
- Ensures trouble-free operation, fewer failures and less downtime
- Reduces maintenance costs for repairs, parts and labor
- Reduces lubricant consumption by 25% to 50%
- Reduces energy consumption

Proprietary Additives

LE's proprietary additives are used exclusively in LE lubricants. Pyroshield Syn Kiln Lubricant contains Almasol.

Almasol® solid wear-reducing additive withstands extremely heavy loads, chemical attack and temperatures up to 1,900°F (1,038°C). It is attracted to metal surfaces, forming a microscopic layer but not building on itself or affecting clearances. Almasol minimizes metal-to-metal contact and the resulting friction, heat and wear.

Technical Data

Pyroshield® Syn Kiln Lubricant

	9020
Color	Black
Relative Density @ 60°F/60°F, ASTM D1298	0.872
Viscosity @ 100°C, cSt, ASTM D445, w/o solids	860
Viscosity @ 40°C, cSt, ASTM D445, w/o solids	24,900
Viscosity @ 100°C, cSt, (w/solids)	1,148
Viscosity Index ASTM D2270, w/o solids	208
Flash Point °C (°F), (COC), ASTM D92, w/o solids	196 (385)
Rust Test 4 hrs @ 60°C, DI H_20, ASTM D665A	Pass
Rust Test 4 hrs @ 60°C, Sea H_20, ASTM D665B	Pass
Copper Corrosion 3 hrs @ 100°C, ASTM D130	1b
Timken OK Load lbs, ASTM D2782	95
Four-Ball EP Weld Point kgf, ASTM D2783	400
Four-Ball EP Load Wear Index kgf, ASTM D2783	97.1
FZG Scuffing ISO 14635-3, A/2.8/50, Fail Stage	>12
FZG Wear ISO 14635-3, A/2.8/50, Specific Weight Loss, mg/kWh	<2

Performance Requirements Met or Exceeded

- ANSI/AGMA 9005-EO2
- Falk Corporation
- FLSmidth
- Foster Wheeler
- Metso

Typical Applications

Industries where large open gears are in service, including:

- Coal-fired power generation
- Mining (iron, copper and other minerals)
- Cement
- Chemical processing





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LE operates under an ISO 9001 Certified Quality System.

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