

# CHAIN GUARD 220®

## EXTREME HIGH TEMPERATURE SYNTHETIC CONVEYOR OVEN CHAIN LUBRICANT TECHNICAL DATA

### DESCRIPTION

**CHAIN GUARD 220®** has a high flash point, excellent wear protection, NSF Listed and H-2 USDA Qualified.

**CHAIN GUARD 220®** is the ultimate performing & best valued synthetic lubricant formulated for conveyor roller ball bearing chains, pin and roller chains, slides and gears that operate in extreme high temperature oven environments. It is fully formulated with Esters and is ISO 220 (SAE 50W)

### **CHAIN GUARD 220® ADVANTAGES**

- **Exceptional Wear Protection** – Very high lubricity ratings to protect against wear, friction, rust and corrosion; thus, extending bearing, chain and equipment life.
- **Reduced Carbonization & Oxidation** – A clean, ash less fluid-film that decreases energy consumption by maintaining optimal amperage, eliminating chain stretching and chain dragging.
- **Lower Evaporation & Volatility** – Very stable in high temperatures, provides longer lubrication intervals, saves money on lubricant consumption, has less smoke and no objectionable odours.
- **High Flash Point** – Apply to either a hot or cold chain while in production, hence reducing maintenance cost and increasing productivity.

### **SPECIFICATION & TYPICAL PROPERTIES**

Typical Properties	ASTM Test Method	Specification
ISO GRADE	D-445	220
Specific Gravity, 15.6°C	D-1298	0.95
Viscosity, cSt @ 40°C (104°F)	D-445	220
Viscosity, cSt @ 100°C (212°F)	D-445	18.7
Viscosity Index	D-2270	95
Fire Point, °C (°F)	D-92	330°C (626°F)
Flash Point, °C (°F)	D-92	326°C (618°F)
Pour Point, °C	D-97	-33°C
Acid No., mg KOH/g	D-3242	0.2
4-Ball Wear Test, 40 Kg, 1200 RPM, @ 167°F, 1 hr. Average wear scar diameter, mm	D-4172	0.4
4-Ball Wear Test, 40 Kg, 1200 RPM, @ 400°F, 1 hr. Average wear scar diameter, mm	SPECIAL TEST	0.5
Evaporation Loss, 6.5 HRS. @ 204°C (400°F), %	D-972	0.95
Falex Tooth Wear (15 min., 700 lb. gage load) Teeth Lost	D-2670	0
Rust Test, 48 Hrs. Distilled Water	D-665A	Pass
Rust Test, 48 Hrs. Sea Water	D-665B	Pass
Typical RBOT @ 150°C, Oxidation Lifetime, min.	D-2272	1,250
Appearance	QL-4099	Light Amber Liquid

# OXIDATION & CORROSION TEST – ASTM D 4636

TEST CONDITIONS  
72 hours @ 204°C

## APPLICATIONS

- Bakery Oven Chains
- Roller Ball Bearing Chains on Oven Conveyors
- Pin/Roller Chains on Tunnel & Tray Ovens
- Paint Oven Chains
- Wood Laminating Oven Chains
- Fiberglass Production
- Cement Plants
- Kiln Car Wheel Bearings & Support Rollers
- Beverage Can Lines
- Lithographic Chains
- Drying Ovens
- Tenter Frame Oven Chains

## REGULATORY STATUS

NSF LISTED YES  
DIRECT FOOD CONTACT (H-2)  
FOOD PROCESSING PLANTS YES

PROPERTY	RESULT
Viscosity Change	+21.67%
Test Cell Appearance	No Stains
Oil Appearance	Dark Amber
Acid Number Change	0.0%
Evaporation Loss	1.5%
Sediment Weight	1.1 mg
Metals:	Weight Change/Appearance
Copper	-0.078 mg/cm <sup>2</sup> / Dull 3b
Aluminum	0.0000 mg/cm <sup>2</sup> / Shiny
Steel	0.0000 mg/cm <sup>2</sup> / Shiny Slight Tan
Magnesium	+0.008 mg/cm <sup>2</sup> / Shiny
Aluminum	-0.023 mg/cm <sup>2</sup> / Shiny Slight Tan

## STORAGE & HANDLING PRACTICES

- Warehouse in unopened containers at ambient conditions. Under these conditions, storage life is practically indefinite.
- For information on the safe handling and use of this product, refer to the Material Safety Data Sheet.
- For more information and availability, call 905-475-9292.



**A division of:**  
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