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Global

TECHNICAL DATA

PETRO-GARD® 220

EXTREME HIGH TEMPERATURE SYNTHETIC CONVEYOR OVEN CHAIN LUBRICANT

DESCRIPTION: Synthetic, Fully Formulated With Esters, ISO 220 (SAE 50)
High Flash Point, Excellent Wear Protection, NSF H-2 Registered

PETRO-GARD® 220 is formulated from premium state of the art synthetic polyol ester base oils and proprietary additives for conveyor roller ball bearing chains, pin/roller chains, tortilla chains, slides and gears that operate in extreme high temperature oven environments. PETRO-GARD® 220 has established several OEM approvals and credible testimonies from bakeries and other industries worldwide.

PETRO-GARD® 220 FEATURES & BENEFITS:

- NSF H-2 registered, meets USDA 1998 H-2 guidelines – Can be used in food plants for non-food contact. Contains no carcinogens and is environmentally friendly.
- Exceptional Wear Protection: It has one of the highest lubricity ratings to protect against wear, friction, rust and corrosion; thus, extending bearing, chain and equipment life.
- Reduced Carbonization & Oxidation: PETRO-GARD®220 is a clean, ashless 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 odors.
- High Flash Point: PETRO-GARD® 220 has a very high flash point exceeding 615°F & can be applied to either a hot or cold chain while in production, hence reducing maintenance cost and increasing productivity.

Physical Properties

Property	Test Method	Typical Specification
ISO GRADE	ASTM D 445	220
Specific Gravity, 15.6°C	ASTM D 1298	0.95
Viscosity, cSt @ 40°C (104°F)	ASTM D 445	220
Viscosity, cSt @ 100°C (212°F)	ASTM D 445	18.7
Viscosity Index	ASTM D 2270	95
Fire Point, °C (°F)	ASTM D 92	355°C (670°F)
Flash Point, °C (°F)	ASTM D 92	326°C (618°F)
Pour Point, °C (°F)	ASTM D 97	-33°C (-25°F)
Acid No., mg KOH/g	ASTM D3242	0.2



PETROCHEM, INC.
SPECIALTY LUBRICANTS

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The information contained herein is believed to be accurate but all suggestions are made without Guarantee because the conditions of actual use are beyond our control. Petrochem disclaims all Liability incurred in connection with the use of this data or suggestions.



Member of the American Baking Society

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4-Ball Wear Test, 40 Kg, 1200 RPM, @ <u>167°F</u> , 1 hr. Average wear scar diameter, mm	ASTM D 4172	0.4
4-Ball Wear Test, 40 Kg, 1200 RPM, @ <u>400°F</u> , 1 hr. Average wear scar diameter, mm	SPECIAL TEST	0.5
Evaporation Loss, 6.5 HRS. @ 204°C (400°F), %	ASTM D-972	0.95
Falex Tooth Wear (15 min., 700 lb. gage load,) Teeth Lost	ASTM D-2670	0
Rust Test, 48 Hrs. Distilled Water	ASTM D 665A	Pass
Rust Test, 48 Hrs. Sea Water	ASTM D 665B	Pass
Typical RBOT @ 150°C, Oxidation Lifetime, min.	ASTM D 2272	1,250
Appearance	QL 4099	Light Amber Liquid

APPLICATIONS:

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

REGULATORY STATUS: NSF REGISTERED # 138124

TSCA (USA)	YES
EINECS (EU)	YES
NDSL (CANADA)	YES
AICS (AUSTRALIA)	YES
ECL (KOREA)	YES
PICCS (PHILIPPINES)	YES
DIRECT FOOD CONTACT	NO (H-2)
FOOD PROCESSING PLANTS	YES



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 (630) 513-6350.