



# TECHNICAL DATA

Rev.06/19

## WHITE-GRAPHITE FG-220

### FOOD GRADE SYNTHETIC ESTER BASED WHITE-GRAPHITE OVEN CHAIN LUBRICANT

**DESCRIPTION:** (ISO 220) Food Grade, 100% Fully Synthetic Formulated Ester Based Carrier fortified with suspended ultra fine white-graphite powder that provides excellent lubrication up to 1200°F. NSF H1 registered for incidental contact with food in and around food processing areas.

**WHITE-GRAPHITE FG-220** is a food grade ester-based synthetic chain oil fortified with suspended solid white-graphite that is designed for use on chains where excellent thermal stability and reduced deposit formation is desired. This fully synthetic ester based carrier (non-vegetable based) minimizes carbon build-up on chains contributed by mineral/vegetable carriers and will cleanly evaporate after 605°F while the ultra fine White-Graphite powder film provides extended lubrication intervals for temperatures up to 1200°F (650°C) Plus.

#### CHARACTERISTICS:

- NSF H1 registered and meets all the requirements of FDA regulations 21 CFR 178.3750
- Contains only H1 food grade components
- Superior load and wear properties
- Excellent oxidative and thermal stability
- Reduced sludge and deposit formation
- Good water and rust resistance
- Carrier has a very high flash point of 605°F (318°C)
- Extended Lubrication up to 1200°F Plus (650°C)
- Chains can be lubricated continuously during production hours. No need to turn ovens off for lubrication, which is typically found with graphite lubricant products. Eliminates flash fires in ovens.

#### PROPERTIES:

Property	Test Method	Typical Specification
ISO GRADE	ASTM D445	220
Pounds Per Gallon @25°C	ASTM D1298	7.98
Viscosity, cSt @ 40°C (104°F)	ASTM D445	220
Viscosity, cSt @ 100°C (212°F)	ASTM D445	27.2
Viscosity Index	ASTM D2270	143
Flash Point, °C (°F)	ASTM D92	318°C (605°F)
Pour Point, °C (°F)	ASTM D97	-20°C (-4°F)
Ramsbottom Carbon Residue %	ASTM D2416	0.24
Fire Point, °C (°F)	ASTM D92	355°C (670°F)
4-Ball Wear Test, 40 Kg, 1200 RPM, @ 167°F, 1 hr. Average wear scar diameter, mm	ASTM D4172	0.38

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4-Ball Wear Test, 40 Kg, 600 RPM, @ 400°F, 1 hr. Average wear scar diameter, mm	ASTM D4172	0.49
4-Ball Wear Test, 40 Kg, 1200 RPM, @ 400°F, 1 hr. Average wear scar diameter, mm	ASTM D4172	0.55
Evaporation Loss, 8.0 HRS. @ 204°C (450°F)	ASTM D2595	2.0%
Evaporation Loss, 24 HRS.	--	4.8%
Evaporation Loss, 48 HRS.	--	8.15%
Evaporation Loss, 72 HRS.	--	11.13%
Evaporation Loss, 96 HRS.	--	13.11%
Evaporation Loss, 120 HRS.	--	16.17%
Evaporation Loss, 144 HRS.	--	17.89%
Evaporation Loss, 168 HRS.	--	19.29%
Appearance	QL 4099	Milky White Liquid
Specific Gravity	D1298	0.95
NSF Registration	--	H1

#### APPLICATIONS:

Flour and Corn Tortilla Oven Chains  
Pita Oven Chains  
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

#### 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.

