



Orelube®

**technical
information**

HT-1001

100% HIGH VISCOSITY SYNTHETIC ESTER LUBRICANT

Description

Modern textile finishing operations such as tenter frames for drying and setting, operate at 200 C and higher. At these temperatures, lubricants are not an extra item, but form an integral part of the machine.

Orelube HT-1001 was designed for high thermal and oxidation stability using a unique high viscosity synthetic ester fluid for exceptionally long lubrication intervals at high temperatures.

Benefits

- Non-carbonizing
- *High natural viscosity for extra low-volatility results in lower oil consumption*
- Natural wetting properties - penetrates fully and disperses evenly into the chain
- Polar molecular attraction to metal surfaces provides good adhesive characteristics
- Light color eliminates the possibility of staining fabric or other materials
- Protection against rust and corrosion of steel, copper, bronze and other alloys
- Superior high temperature oxidation and thermal stability for prolonged fluid life
- Extreme pressure protection
- High film strength and lubricity reduces chain wear and power consumption

Applications

- Bakery oven chains
- Textile tenter frame ovens -- roller chains for combined lubrication of ball bearings, chain links and slide rails and sliding chains for lubrication of slide rails, chain links and chain bolts
- Paint and ceramic curing ovens
- Lithographic ovens
- Plywood drying ovens
- Plastics processing machinery
- Lens and glass forming equipment
- Building insulation ovens
- Light duty gear boxes operating at elevated temperatures

HT-1001 provides fluid lubrication at continuous operating up to 230 C / 446 F, and at intermittent operating temperatures up to 290 C / 554 F. Lubrication intervals depend on operating conditions such as temperature, speed, load, environment, lubricating system and chain design, and is best determined by trial and observation.

The Orelube Corporation
201 East Bethpage Road, Plainview, NY 11803
516-249-6500 • 800-645-9124 • Fax 516-249-6566



The Orelube Corporation holds an exclusive worldwide license from The Boeing Company to manufacture and market the BOELUBE® series of lubricants.

Guidelines to help set lubrication intervals:

Chain guides should be lubricated regularly up to one time per day depending on the distance and design. Bolts with oil pockets should be lubricated one day per week, or as necessary. Chains with spray lubrication systems should be lubricated daily, using the smallest amount of oil necessary to lubricate the friction points.

In general, the amount of fluid evaporation over a period of time is not as important as the condition of the remaining fluid. HT-1001 retains its oily, fluid-like state without the build-up of hard carbon residues.

Typical Properties

Color	Amber
Viscosity, ASTM D-445	
cSt @ 40 C	389.1
cSt @ 100 C	37.9
Viscosity Index	144
Flash Point, F (C)	572 (300)
Pour Point, F (C)	-40 (-40)
Rust Test, ASTM D-665 A and B	Pass
Copper Corrosion, ASTM D-130	
3 hrs @ 100 C	1a
4-Ball Wear, ASTM D-2266	
167 F, 40 kg, 1200 rpm, 1 hr	
scar diameter, mm	0.32
Evaporation loss, ASTM D-2595	
22 hrs @ 204 C, % weight loss	3.43
Viscosity @ 40 C, cSt	483.5
of oil from evaporation cell	
Acid No., ASTM D-664	
of new oil, mg KOH/g	0.22
of evaporation cell oil, mg KOH/g	1.09
Evaporation loss, ASTM D-2595	
22 hrs @ 220 C, % weight loss	5.61
Viscosity @ 40 C, cSt	544.1
of oil from evaporation cell	
Acid No., ASTM D-664	
of evaporation cell oil, mg KOH/g	1.81

Thin Film Evaporation Test:

1 g of sample is weighed to 0.1 mg accuracy in a tared aluminum dish (55 x 15 mm). The dish is placed in a gravity convection oven at 200 C for 6 hours. The dish is removed from the oven and reweighed. The dish is returned to the oven for an additional 16 hours after which the weighing procedure is repeated:

% weight loss @ 6 hours = 5.22

% weight loss @ 22 hours = 9.77

