



TIODIZE®

TECHNICAL DATA

TIOLUBE®
20/20®

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PRODUCT DATA ON TIOLUBE®

20/20®

**ENVIRONMENTALLY SAFE, LOW VOC, WATER BASE,
CORROSION RESISTANT, HEAT CURE, SOLID FILM LUBRICANT**

NON-FLAMMABLE – NO METALLICS – NO HEAVY METALS

QUALIFIED TO: MIL-PRF-46010G, Qualification number: M-6025, TACOM

It also meets MIL-L-8937, AS 5272 Type III and AS1701 Class I & II along with the new Federal, State and local environmental regulations.

TIOLUBE 20/20: Designed to lubricate critical parts such as:

Fasteners	Military Equipment
Hydraulic Fittings	Weapons
Bearings	Splines, Shafts
Gears	Nuts & Bolts

Through **Tiodize** research, new solid film lubricants are formulated to meet the changing and demanding requirements of Industry. Years of experience and a competent research and production staff permit **Tiodize** to solve a wide array of lubrication problems. Our continuous research effort lets us provide our customers with improved products and processes, as well as up-to-date technical literature.

**TIOLUBE 20/20 can be purchased in bulk by asking for:
Quarts, Gallons and 5 Gallon Cans.**

ENDURANCE (WEAR LIFE) DATA USING THE FALEX PIN & V-BLOCK TESTER

540 Minutes: When lubricant was cured at 180°F for one hour and then 400°F for 15 minutes.

485 Minutes: When lubricant was cured at 180°F for one hour and then 350°F for 25 minutes.

PIN: SAE 3135, Rb 87-90
BLOCK: AISI-C1137, Rc 20-24
PRETREATMENT: per ASTM D2625
SPEED: 290 RPM;
LOAD: 1000 lb. Gage (Approx. 50,000 PSI)

FLUID RESISTANCE – TIOLUBE® 20/20®

1. Anti Icing Fluid	MIL-A-8243	PASS
2. Cleaning Compound, Solvent	MIL-C-372	PASS
3. Reagent Water	ASTM D1193, Type III	PASS
4. Substitute Ocean Water	ASTM D1141	PASS
5. Hydraulic Fluid, Synthetic Base	MIL-H-46170	PASS
6. Turbine Fuel, Kerosene Type	MIL-DTL-83133, JP-8	PASS
7. Lubricating Oil, Synthetic Base	MIL-PRF-23699	PASS
8. Damping Fluid, Silicone Base	VV-D-1078	PASS
9. Lubricating Oil, Low Temp.	MIL-L-14107	PASS
10. Lubricant, Semi-Fluid	MIL-L-46000	PASS
11. Lubricant, Cleaner, Preservative	MIL-PRF-63460	PASS
12. Lubricant, All Weather	MIL-PRF-85336	PASS

PHYSICAL PROPERTIES 20/20

<u>VOC Content:</u>	Less than 42 grams/liter
<u>Color/Appearance:</u>	Grey/Black
<u>Lubricative Pigment:</u>	Molybdenum Disulfide (MoS ₂), no graphite, metallics or lead.
<u>Solvent:</u>	D. I. Water
<u>Operating Temperature:</u>	400°F continuously, 500°F intermittent
<u>Salt Spray:</u>	ASTM B117 = 200 hours (0.001 in. coating thickness)
<u>Coverage:</u>	1500 sq. ft. per gallon @ 0.0005 thickness
<u>Cure Cycle:</u> (Mil-PRF-46010)	Air dry for at least 30 minutes or Flash cure at 65°C to 70°C for 10 to 30 minutes, Then bake at 204 ± 15°C for at least 1 hour. or Bake at 150 ± 15°C for at least 2 hours.

The Cure Cycles are based on the “Part” Temperature not the “Oven” Temperature

<u>Recommended Thickness:</u>	0.0002” to 0.001”
<u>Shelf Life (Bulk):</u>	One Year from the Date of Manufacture