



CITGO® CITGEAR® Synthetic HT Lubricants

OVERVIEW



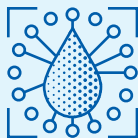
- CITGO CITGEAR Synthetic HT Gear Lubricants are fully synthetic products designed for gear applications operating at high temperatures and/or very low temperatures, severe conditions not requiring extreme pressure (EP) load protection.

FEATURES & BENEFITS



- Compared to conventional mineral oil based products, CITGEAR Synthetic HT lubricants offer exceptionally low pour points and high viscosity indexes.
- High viscosity index provides higher viscosities and protective film thickness at high operating temperatures.
- Excellent low temperature properties for easy fluid pumping and equipment start-up in extreme cold environments.
- High resistant to oxidation, provides rust and corrosion protection and low foaming tendencies.
- Lower coefficients of friction than conventional mineral oils as determined in steel on steel measurements, which provides energy savings potential.
- Higher heat transfer properties than conventional mineral oils often results in cooler running machinery.
- Compatible with most conventional mineral oils.
- Compatible with essentially all elastomers, gaskets, seals such as nitrile, Buna N, Viton®, Teflon®, polyethylene, flouorcarbon, polyacrylate, epoxy, and PVC. They will not deteriorate acrylic paints or lacquers.

APPLICATIONS



- CITGO CITGEAR Synthetic HT Lubricants are recommended for lubrication of industrial blowers such as those manufactured by GE Engery (Roots), Gardner Denver, etc., and air and natural gas compressors.
- Note: CITGO CITGEAR Synthetic EP Gear Lubricants are recommended for gears requiring extreme pressure protection.

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PROPERTIES



Typical Properties for CITGO CITGEAR Synthetic HT Lubricants:

Grade	68	100	150	220	320	460	680	1000
Material Code	632571001	632572001	632573001	632574001	632575001	632577001	632579001	632597001
Specific Gravity, ASTM D1298	0.8465	0.8503	0.8549	0.8573	0.8588	0.8628	0.8657	0.8657
API Gravity ASTM D4052	35.6	35.0	34.0	33.6	33.2	32.5	31.9	32.4
Pounds Per Gallon	7.05	7.08	7.12	7.14	7.15	7.18	7.21	7.21
Viscosity, ASTM D445								
cSt at 40°C	61.8	91.4	161.7	229	321	460	634	1000
cSt at 100°C	9.6	13.0	20.2	26.5	34.2	44.9	57.0	84.0
Viscosity Index ASTM D2270	138	140	146	149	150	153	154	168
Flash Point, °F (°C) ASTM D92	561 (294)	550 (288)	565 (296)	554 (290)	554 (290)	540 (282)	572 (300)	572 (300)
Fire Point, °F (°C) ASTM D92	583 (306)	576 (302)	586 (308)	586 (308)	586 (308)	597 (314)	597 (314)	597 (314)
Pour Point, °F (°C) ASTM D97	-71 (-57)	-65 (-54)	-54 (-48)	-49 (-45)	-44 (-42)	-44 (-42)	-33 (-36)	-11 (-24)
Copper Corr ASTM D130	1A	1A	1A	1A	1A	1A	1A	1B
Rust A/B ASTM D665	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Demulsibility ASTM D1401	40/40/0/15	40/40/0/15	40/40/0/10	40/40/0/15	40/40/0/15	40/40/0/10	40/40/0/15	40/40/0/25
Four Ball Wear:								
at 40kg ASTM D4172	0.31	0.32	0.31	0.30	0.30	0.32	0.32	0.32
at 20kg ASTM D4172	0.21	0.21	0.21	0.20	0.23	0.22	0.24	0.31
Foam Test, Seq. I, II, III ASTM D892	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Color ASTM D1500	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0
AGMA Grade	2	3	4	5	6	7	8	8A