

# CITGO CITGEAR® SYNTHETIC EP LUBRICANTS

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Date 03/18

**DESCRIPTION:** CITGO CITGEAR® Synthetic EP Gear Lubricants are designed for highly loaded gear applications operating at high temperatures and/or very low temperatures, severe conditions, or requiring extreme pressure (EP) protection.

- QUALITIES:**
- Compared to conventional mineral oil based products, CITGEAR Synthetic EP lubricants offer exceptionally low pour points and high viscosity indexes.
  - The high viscosity index provides higher viscosities and greater film thickness at high temperatures and lower viscosities at low temperatures for easy start-up.
  - Extreme Pressure (EP) additives protect gears operating in boundary lubrication regime and guard against failures associated with heavy loading and severe operation.
  - Exhibit low foaming tendencies, high oxidation resistance, and provide excellent rust and corrosion protection.
  - CITGO CITGEAR Synthetic EP Gear Lubricants have lower coefficients of friction than conventional mineral oils providing reduced energy consumption.
  - Higher heat transfer properties than conventional oils often results in cooler running machinery.
  - Compatible with essentially all commonly used elastomers, gaskets, seals such as nitrile, Buna N, Viton®, Teflon®, polyethylene, flouorocarbon, polyacrylate, epoxy, and PVC. They will not deteriorate acrylic paints or lacquers.

**APPLICATIONS:** CITGO CITGEAR Synthetic EP Gear Lubricants are recommended for gears requiring EP protection, for applications which experience a wide range of temperatures and where a long lasting fluid is desired for extended drain intervals.

They are particularly recommended for lubricating industrial enclosed gears, “sealed-for-life” systems, and heavily loaded plain or roller element bearings. With proper maintenance, useful service life may be extended beyond that associated with mineral oils. They are recommended for splash, idler immersion systems, forced drip and mechanical spray systems. No flushing or cleaning is required when converting from mineral oils to these synthetic products. Consult owner’s manual for proper lubricant selection.

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Date 03/18 - (Continued)

TYPICAL PROPERTIES:

CITGO CITGEAR® SYNTHETIC EP GEAR LUBRICANTS

Grade	100	150	220	320	460	680
Material Code	632582001	632583001	632584001	632585001	632587001	632588001
Specific Gravity ASTM D1298	0.851	0.856	0.857	0.864	0.864	0.867
API Gravity ASTM D4052	34.7	33.8	33.6	32.3	32.3	32
Pounds Per Gallon	7.09	7.13	7.14	7.19	7.19	7.21
Viscosity ASTM D445						
cSt at 40°C	101.4	155	220	340	434	689
cSt at 100°C	14.85	19.9	25.6	35.5	43.0	60.4
Viscosity Index ASTM D2270	153	144	148	150	152	154
Brookfield at -40 ASTM D2983	58,800	-	-	-	-	-
Flash Point, °F (°C) ASTM D92	435 (224)	432 (222)	500 (260)	464 (240)	464 (238)	457 (236)
Pour Point, °F (°C) ASTM D97	-71 (-57)	-54 (-48)	-54 (-48)	-49 (-45)	-44 (-42)	-38 (-39)
Copper Corr ASTM D130	1B	1B	1B	1B	1B	1B
Rust A/B ASTM D665	Pass	Pass	Pass	Pass	Pass	Pass
Demulsibility ASTM D1401	Pass	Pass	Pass	Pass	Pass	Pass
Timken OK Load ASTM D2782	65	65	75	75	75	75
Four Ball Weld, Kg ASTM D2783	250	250	250	250	250	250
Four Ball Wear ASTM D4172						
at 40KG	0.35	0.35	0.35	0.35	0.35	0.35
at 20KG	0.31	0.31	0.29	0.29	0.29	0.29
Foam Test, Seq. I, II, III ASTM D982	Pass	Pass	Pass	Pass	Pass	Pass
Color ASTM D1500	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0
AGMA Grade	3 EP	4 EP	5 EP	6 EP	7 EP	8 EP
US Steel 224	Pass	Pass	Pass	Pass	Pass	Pass
SAE Grade	75W90	-	-	-	-	-
API Classification	GL-4	-	-	-	-	-

Values shown are typical values only and do not constitute a specification. The information contained herein is subject to change without notice.