



CITGO® CompressorGard® PAG

OVERVIEW



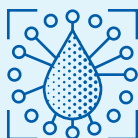
- Designed for high-pressure reciprocating compressors operating with natural gas, carbon dioxide, hydrogen, helium, nitrogen, ammonia, and other polar gasses.

FEATURES & BENEFITS



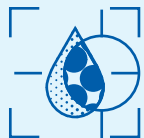
- Resistance to hydrocarbon dilution and absorption of the gas stream prevents condensed hydrocarbon liquids in the cylinder area from washing the lubricant from the cylinder walls. Other lubricants which absorb these liquids lose viscosity, which can result in severe mechanical damage.
- High viscosity index and low pour points allow usage over a wide temperature range.
- Permit reduced maintenance costs and decreased downtime due to improved lubrication.
- Minimize problems in separators, meters, filters, and other downstream components due to lower lubricant consumption.
- Allow easier handling and lower disposal costs.
- Reduce absorption of lubricating oil into the gas at higher pressures.
- Minimize viscosity degradation when saturated with high-pressure gas.
- Provide excellent resistance to wash-off by liquid hydrocarbon gases.
- Offer compatibility with well bore fluids and treating chemicals, thereby reducing well impairment incidents.

APPLICATIONS



- Recommended for flooded rotary screw and vane compressors used for compressing natural gas, carbon dioxide, and other gaseous hydrocarbons.
- When proper viscosity grade is selected, suitable for use as a reciprocating compressor cylinder lubricant when processing these and other gases requiring chemical resistance.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES



Typical Properties for CITGO CompressorGard PAG:

ISO Viscosity Grade	100	150	220
Material Code	632538001	632348001	632595001
Gravity, °API	4.2	3.7	3.5
Specific Gravity	1.04	1.05	1.05
Density, lb/gal. 60/60°F	8.67	8.71	8.73
Viscosity, ASTM D445			
cSt at 40°C	107	154.1	220
cSt at 100°C	21.1	29.3	41.05
Viscosity Index, D2270	223	232	241
Flash Point, ASTM D92, °F (°C)	555 (291)	547 (286)	554 (290)
Pour Point ASTM D97, °F (°C)	-54 (-48)	-49 (-45)	-49 (-45)
Color, ASTM D1500	L0.5	L0.5	L0.5
Copper Strip Corrosion, ASTM D130	1A	1A	1A
Rust Protection, ASTM D665A	Pass	Pass	Pass
Four Ball Wear, ASTM D4172 mm @ 40 kg	0.64	0.63	0.83
Foam Resistance, ASTM D892 Sequence I, II, III	Pass	Pass	Pass
Carbon Residue, mg	0.01	0.01	0.01

CITGO, and CompressorGard are registered trademarks of CITGO Petroleum Corporation. All other registered trademarks or trademarks are the property of their respective owners. Values shown are typical values only and do not constitute a specification. The information contained herein is subject to change without notice.