

RPAG-354 Series

Vehicle Air Conditioning Lubricants



Description

RPAG polyglycol lubricants are specially formulated for use in vehicle air conditioning systems running on R134a. Developed for original fill and top up, RPAG lubricants feature excellent chemical and thermal stability, improved wear performance and extended compressor life. They provide the correct miscibility to use over a wide operating temperature range.

Advantages

- Perfectly miscible and compatible with HFC-134a in a wide range of pressures and temperatures assuring long and trouble-free service life
- Low pour point and high viscosity index assuring excellent performance, in both cold and hot climates
- Chemically highly stable
- Proper design of the molecules of the base oil glycol as well as the unique applied additive system assure ideal lubricity



Outstanding Miscibility

The performance of an HFC system is optimized when the lubricant and refrigerant mix to form a single, clear phase.

Miscibility lowers the viscosity of the lubricant carried through the system, so the lubricant can more efficiently return to the compressor. Mineral oils are not miscible with HFCs whereas RPAG lubricants have a controlled level of miscibility with HFC gases.

Properties

Parameter	ASTM Method	46	55	62	100	125	150
Viscosity @ 40°C, cSt	ASTM D445	46.52	55.3	65.2	101.68	134.6	150.8
Viscosity @ 100°C, cSt	ASTM D445	9.47	10.6	11.7	9.61	25.1	17.5
Viscosity @ 100°F, SUS	ASTM D445	236.3	279	332	541.0	679	787.7
Viscosity @ 210°F, SUS	ASTM D445	58.1	61.8	66.5	58.9	122	90.1
Viscosity Index	ASTM D2270	193	185	178	61	221	127
Density, lb/gal, 60°F	ASTM D4052	8.14	8.20	8.19	8.66	8.70	8.51
Density, 20°C, g/ml	ASTM D1298	0.9768	0.9840	0.9828	1.0392	1.0440	1.0212
Pour Point °F	ASTM D97	-44	-55	-55	-22	-44	-19
Pour Point °C	ASTM D97	-42	-48	-48	-30	-42	-28
Flash Point, C.O.C., °F	ASTM D92	315	445	445	375	485	375
Flash Point, C.O.C., °C	ASTM D92	157	220	229	190	251	190
Fire Point, C.O.C., °F	ASTM D92	335	480	480	400	525	400
Fire Point, C.O.C., °C	ASTM D92	168	249	249	204	273	204
Specific Gravity	ASTM D4052	0.978	0.98	0.985	1.039	1.05	1.02
TAN (mgKOH/g)	ASTM D974	0.025	0.10	0.40	0.05	0.30	0.05
Dielectric Strength (kV)	ASTM D877	34.8	nd	nd	27.0	nd	27.0
Copper Strip Test	ASTM D130	1a	1a	1a	1a	1a	1a

This application guide covers only a few of the many possible lubricants for various applications. Please consult your OEM and CPI for specific information on our complete product line as well as viscosity recommendations.

CPI is a world leader in the synthetic lubricants industry with operations in North America, Europe, Africa and Asia Pacific regions. In addition to our RPAG lubricants, CPI offers lubricants for any refrigeration application including residential and commercial air conditioning and residential, commercial and industrial refrigeration, with HFC and low Global Warming Potential (GWP) refrigerants such as Carbon Dioxide, Hydrocarbons and Ammonia. CPI also offers a comprehensive range of Industrial Lubricants for Process gas, Hydrocarbon gas, Air Compressors, Vacuum Pumps, Hydraulics, Gears, Chains, Turbine, Landfill Gas, Field Gas, Chemical Process and many NSF H1 & H2 Food Grade applications. CPI is ISO 9001 and ISO 14001 accredited and earned the 1993 Stratospheric Ozone Protection Award from the Environmental Protection Agency. Also registered for the manufacture of Halal, Kosher and Pareve products.