



High-performance synthetic industrial gear lubricant

APPLICATIONS

Enclosed gears, bearings,
gear couplings

- **CARTER SP OILS** are premium quality PAO industrial gear lubricants designed to provide excellent extreme pressure (EP) and load carrying properties. They were developed for enclosed industrial gears to provide optimum gear protection against scuffing under very severe conditions
 - bevel and spur gears
 - Heavily loaded bearings and gear couplings

PERFORMANCE

International and OEM
Specifications

- AGMA 250.04
- AFNOR NFE 60.200 - Category CKD
- CINCINNATI MACHINE P-74 (ISO 220) and P-59 (ISO 320)
- DAVID BROWN ET 33/80
- DIN 51517 Part 3 - Group CLP
- DIN 51502 - Group CLP
- ISO 6743-6 category CKD
- US STEEL 224

ADVANTAGES

- Excellent extreme-pressure performance: protection against high loads.
- Compatibility with elastomers
- Very good thermal stability and oxidative life ensuring a longer service life than conventional lubricants.
- Very low pour point: operation at very low temperatures.
- Good oil-water separation behavior.
- Very high natural viscosity index (shear stable) and low friction coefficient

TYPICAL CHARACTERISTICS--CARTER SP

ISO Grade	68	100	150	220	320	460	680	1000
AGMA Grade	2EP	3EP	4EP	5EP	6EP	7EP	8EP	8A
Density @ 60 °F, lbs. /gal. ASTM D 1298	0.859	0.862	0.874	0.872	0.877	0.881	0.885	0.890
Viscosity at 40°C, cSt, ASTM D 445	67.1	95.7	142	213	307	437	630	947
Viscosity at 100°C, cSt, ASTM D 445	9.9	12.9	17.3	23.2	30.2	37.4	49.6	66.2
Viscosity Index, ASTM D 2270	130	132	133	134	134	130	134	135
Pour Point, °F ASTM D 97	-70	-60	-60	-45	-40	-35	-30	-20
Flash Point, COC, °F, ASTM D 92	445	445	445	430	425	435	416	400
Copper Strip Corrosion, ASTM D 130	1B	1B	1B	1B	1B	1B	1B	1B
Timken Load, lbs., ASTM D 2782	65	65	65	65	65	70	70	70
4-ball weld, kgs, ASTM D 2783	200	200	315	315	315	315	315	400
FZG A/8, 3/90, fail stage, DIN 51354/2	>13	>13	>13	>13	>13	>13	>13	>13

TOTAL Lubricants USA Southwest

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Carter SP Oils
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