



## SPIRAL EP MINERAL

### PRODUCT DESCRIPTION:

SPIRAL EP gear lubricants are high-performance, multipurpose mineral oil-based oils formulated for use in a variety of industrial gear systems, including spur, helical, and straight and spiral bevel gears. These lubricants are designed to perform under severe conditions, covering a wide range of speeds, loads, and temperatures. They offer exceptional wear protection and excellent thermal stability.

### APPLICATION:

SPIRAL EP gear oils are recommended for industrial enclosed gearing where an AGMA extreme pressure lubricant is specified. It is designed for use in industrial gear boxes including in crushers, hoists, conveyors, winches, machine tools and lathes. It can also be used in chain drives, sprockets, plain and anti-friction bearings and slide guides.

### FEATURES & BENEFITS:

- High thermal stability EP system helps maintain clean gear and bearing surfaces
- Effective EP system forms a protective film in areas of metal-to-metal contact, minimizing wear rates and maintaining efficient transfer of power
- Effective oxidation inhibitors and copper passivator minimize oil oxidation, limiting viscosity increase and promoting long drain intervals

### PERFORMANCE LEVELS: Meets and Exceeds:

- DIN 51517 Part 3 CLP
- ISO 12925-1:1996 CKD
- AIST 224/US STEEL 224
- ANSI/AGMA 9004-D95/9005-E02
- DAVID BROWN S1.53.101
- GM LS 2 EP GEAR OIL
- FIVES CINCINNATI MACHINE GEAR
- FLENDER

### TYPICAL PROPERTIES:

PARAMETERS	TEST METHOD	UNIT	VECTOR EP							
			68	100	150	220	320	460	680	1000
ISO VG			68	100	150	220	320	460	680	1000
AGMA Grade			2 EP	3 EP	4 EP	5 EP	6 EP	7 EP	8 EP	8 EP
API Gravity	-	-	31	30	29	28	27	26	26	25
Kinematic Viscosity @ 104°F /40°C	ASTM D7042	cSt	68.1	107.0	153.4	216.9	319.1	452.2	665.6	1000
Kinematic Viscosity @ 212°F /100°C	ASTM D7042	cSt	TBR	TBR	TBR	TBR	TBR	TBR	TBR	TBR
Viscosity Index (min)	ASTM D2270	-	95	95	95	95	95	95	95	95
Flash Point (min)	ASTM D92	°C	200	200	200	200	200	200	200	200
Pour Point (max)	ASTM D97	°C	-9	-9	-9	-9	-9	-9	-9	-9
Timken OK Load	-	lb	65	65	65	65	65	65	65	65
FZG Pass Stage	ASTM D5182	-	12	12	12	12	12	12	>12	>12

DISCLAIMER: The test data provided above is for reference purposes and is not a strict specification, as variations within acceptable production tolerances may occur. Phoenix reserves the right to update or revise this test data. For the most accurate and up-to-date information, please consult the latest version of this Technical Data Sheet (TDS).

### HEALTH & SAFETY, ENVIRONMENT:

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further information on Safety Guidelines please refer to MSDS available on our website Phoenixlubricants.com