



## VECTOR EP

### PRODUCT DESCRIPTION:

Vector EP gear lubricants are high performance, multipurpose mineral oil based lubricants designed for many types of industrial gear lubrication services where loads and shock loadings are high.

### APPLICATION:

Vector 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:

- AGMA EP 9005-E02
- DIN 51517-3 (CLP)
- MAG Cincinnati, Cincinnati Machine P-63 (ISO 68), P-76 (ISO 100), P-77 (ISO 150), P-74 (ISO 220), P-59 (ISO 320), P-35 (ISO 460), P-78 (ISO 1000)
- U.S. Steel 224 Specification (ISO 220, 320, 460, 680)
- 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	-	-	31.0	30.6	29.7	28.4	27.3	26.3	26.0	25.7
Kinematic Viscosity @ 104°F /40°C	ASTM D-7042	cSt	68.1	107.0	153.4	216.9	319.1	452.2	665.6	1000
Kinematic Viscosity @ 212°F /100°C	ASTM D-7042	cSt	8.7	11.8	14.8	18.5	23.7	29.9	36	46
Viscosity Index	ASTM D-2270	-	99	98	96	95	93	92	100	110
Flash Point (min)	ASTM D-92	°C	230	242	248	252	260	280	280	280
Pour Point (max)	ASTM D-97	°C	-27	-27	-21	-18	-18	-18	-12	-12
Timken OK Load	-	lb	65	65	65	65	65	65	65	65
FZG Pass Stage	ASTM D-5182	-	12	12	12	12	12	12	>12	>12



**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 [www.lubrex.net](http://www.lubrex.net)

**HEALTH & SAFETY:**

This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet [www.lubrex.net](http://www.lubrex.net)

**PROTECT THE ENVIRONMENT**

Take used oil to an authorized collection point. Comply with local regulation. Do not discharge into drains, soil or water.

**STORAGE:**

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.

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