## GRAVIS MP SERIES

High Quality Industrial Gear Oil

## Description

Lead-free, enclosed gear system oil that provides protection against scratching under severe loading, micro-pitting and tooth breakage. It successfully passed FLENDER's two-year oxidation resistance performance tests for 10,000 hours under $80^{\circ} \mathrm{C}$.

## Applications

It is recommended to use in applications that require Flender AG specifications to provide resistance against scratching of the surfaces of the mating gears during the slipping-rolling motion, micro-pitting and cracking. It can be used in all kind of gearbox designs, including worm gear sets.

## Benefits

- Prevents scratching, micro-pitting and tooth breakage on the gear.
- It meets min 12 in FZG spur gear testing and min 70 lb Timken load value.
- Prevents formation of sludge and deposit, keeps the systems clean.
- Provides protection due to high film resistance.
- Features high degree of oxidation stability ensures long service life.
- Reduces the maintenance costs, promotes the operation efficiency.
- Protects the system against rust and corrosion.
- Used in all kinds of gear system due to their wide range of viscosity.
- Reduces wear during cold start.
- Suits wide range of packing materials.
- Provides highest protection in the presence of water.
- Features high performance in marine applications and the corrosive environment.


## Performance

DIN 51517 Part 3, AIST 224, AGMA 9005-E02, SEB 181226, David Brown S1.53.101 E, FLENDER Revision 15 (approval)

## Typical Specifications*

| ISO Viscosity Grade |  | 150 | 220 | 320 | 460 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Density, I $15^{\circ} \mathrm{C}, \mathrm{kg} / \mathrm{m}^{3}$ | ASTM D 4052 | 0,896 | 0,898 | 0,901 | 0,902 |
| Flash Point $\mathrm{COC},{ }^{\circ} \mathrm{C}$ | ASTM D 92 | 260 | 270 | 282 | 290 |
| Viscosity, $40^{\circ} \mathrm{C}, \mathrm{mm}^{2} / \mathrm{s}$ | ASTM D 445 | 150 | 220 | 320 | 460 |
| Viscosity, $100^{\circ} \mathrm{C}, \mathrm{mm}^{2} / \mathrm{s}$ |  | 14,65 | 18,9 | 23,9 | 30,1 |
| Viscosity Index | ASTM D 2270 | 96 | 96 | 95 | 94 |
| Pour Point, ${ }^{\circ} \mathrm{C}$ | ASTM D 97 | -21 | -18 | -12 | -9 |

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[^0]:    * Values shown may differ between productions.

