

Gazpromneft Reductor F

High-quality gear oils

DESCRIPTION

Gazpromneft Reductor F gear oils are designed to meet the requirements of Siemens AG (Rev.13) for lubricants used in Flender gear reducers with helical, bevel, or epicyclic gears. Base oils and additives composition deliver high resistance to oxidation and micro-pitting, as well as reduction of contact area load. **Gazpromneft Reductor F** oils are compatible with most seal materials used in gears. They allow for reducing the list of oils used for gear lubrication.

APPLICATION

Flender closed gear reducers with oil circulating systems or centrifugal lubrication; closed gear reducers of other OEMs, industrial equipment gears subjected to medium, high or shock loads; circulating systems of other mechanisms operating under high loads; hot presses and other heavy-duty equipment where the use of oils meeting DIN 51517 Part 3 (CLP) standard is required.

A properly chosen lubricant allows for reducing repair and maintenance costs, extending equipment service life and increasing capacity.

BENEFITS

- **Anti-wear properties**
Anti-wear and anti-welding additives extend equipment life and retain gear teeth shape protecting their surface from welding and micro-pitting. The oils provide equal load distribution between gear teeth; adsorbed additive films prevent metal-to-metal contact. Gazpromneft Reductor F oils exhibit excellent anti-wear performance: 12 cycles of FZG test method (double speed) (DIN ISO 14635-1) and micro-pitting testing (grey stains; FVA 54 I-IV test method at 90°C – 10 fail).
- **Oxidation resistance**
Thoroughly selected base stocks provide resistance to oxidation at high temperatures without lacquer formation – what have been proved by Siemens AG tests results (for gear oils used in Flender Gear Reducer). Under the above specification, **Gazpromneft Reductor F** service life is at least 10,000 operating hrs. or two years.
- **Corrosion protection**
High-quality base oils deliver superior anti-corrosion performance and protect equipment against rust in idle mode as well.
- **High anti-foaming performance**
Gazpromneft Reductor F oils feature excellent anti-foaming performance that prevents viscosity and load capacity reduction and resists early oxidation of oil. The oils successfully passed Flender Foam Test.
- **Seal compatibility**
Compatible with most seal materials used in gears, both solid and liquid polymer seals, as well as internal painted surfaces. Retains seal structure minimizing oil leaks and contamination.

SPECIFICATIONS AND APPROVALS

Gazpromneft Reductor F oils approved:

FLENDER Rev.13 License No. A-GP-2012081.

Gazpromneft Reductor F oils comply with:

DIN 51517 Part 3 (CLP).

TYPICAL PROPERTIES

| Gazpromneft Reductor F | | | | |
|--|------------|------------|------------|------------|
| ISO Grade | 150 | 220 | 320 | 460 |
| Viscosity, cSt @ 40°C | 150 | 220 | 320 | 460 |
| cSt @ 100°C | 14 | 18 | 23 | 29 |
| VI | 96 | 96 | 97 | 98 |
| Flash Point, COC, °C | 230 | 235 | 235 | 250 |
| Pour Point, °C | -12 | -9 | -9 | -9 |
| Acid Number, mg KOH/g | 0.6 | 0.6 | 0.6 | 0.6 |
| Color | 2 | 2.5 | 3 | 4 |
| Density @ 15°C, kg/m ³ | 890 | 890 | 900 | 900 |
| FZG A/8,3/90 (no DIN ISO 14635-1), stage | >12 | | | |
| FZG A/16,6/90 (no DIN 14635-1), stage | >12 | | | |

HEALTH AND SAFETY

Proper industrial and personal hygiene, as well as proper application of Gazpromneft Reductor F will not produce adverse effects on health. The lubricants refer to Hazard Class 4, and to Hazard Class 3 as oil mist (GOST 12.1.007). Avoid contact with skin. Use protective gloves. In case of contact, flush immediately with water and soap.

Use the product according to its intended purpose. Gear oils are flammable liquids with flash point not less than 210°C (GOST 12.1.044). Observe all of laws, rules, regulations and agreements relevant to the environment. Collect and deliver exhaust oils to exhaust fluids reception station. Do not discharge the remaining and exhaust oil into city sewer system, soil or water bodies.

Manufacturer: Gazpromneft-Lubricants Ltd., 125A Profsoyuznaya St., Moscow 117647 Russia. Gazpromneft-Lubricants Standard #84035624-075-2012

For more information please contact our technical personnel: e-mail: Techservice@gazprom-neft.ru

While the information and figures given here are typical of current production and conform to specification, minor variations may occur. No warranty expressed or implied is given concerning the accuracy of the information or the suitability of the products.

12.12.2012

