

"Gazpromneft-lubricants", Ltd.  
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Moscow, Russia, 117218



# CERTIFICATE OF ANALYSIS № 18002664-OZSM

Gear oil Gazpromneft GL-5 80W-90  
STO 84035624-068-2012 revision 1-3 OKPD 2 code  
19.20.29.150

Declaration of Conformity  
reg. number: EA3C № RU Д-РУ.НХ20.В.00589 on 16.07.2020  
Company management is certified for compliance with the standards  
ISO 9001: 2015, ISO 14001: 2015, OHSAS 18001: 2007

Tank: E-4 Level, cm: 214 Quantity, t: 123,2  
Batch: 25536 Package: 527 drums of 205.0 L 96,9680 t

| Characteristics                                             | Test Method   | TR of the CU limit | ND limit                                           | Analysis result                                    |
|-------------------------------------------------------------|---------------|--------------------|----------------------------------------------------|----------------------------------------------------|
| Kinematic viscosity at 100 °C, mm <sup>2</sup> /s, in range | GOST 33       | -                  | 13,50 - 15,50                                      | 13,94                                              |
| Brookfield viscosity at minus 26 °C, mPa·s, max             | ASTM D 2983   | -                  | 150000                                             | 58000                                              |
| Flash Point, COC, °C, min                                   | GOST 4333     | 135                | 180                                                | 232                                                |
| Pour Point, °C, max                                         | GOST 20287    | -                  | Minus 30                                           | Minus 40                                           |
| Mechanical impurities, wt %, max                            | GOST 6370     | 0,03               | Absence                                            | Absence                                            |
| Water content, wt %, max                                    | GOST 2477     | -                  | Traces                                             | Traces                                             |
| Phosphorus content, wt %, in range                          | ASTM D 6481   | -                  | 0,03 - 0,05                                        | 0,05                                               |
| Foaming tendency, ml, max                                   | ASTM D 892    | -                  | 50                                                 | 10                                                 |
| - Seq. I                                                    |               |                    | 50                                                 | 30                                                 |
| - Seq. II                                                   |               |                    | 50                                                 | 10                                                 |
| - Seq. III                                                  |               |                    |                                                    |                                                    |
| Tribological characteristics, Four-Ball Method              | GOST 9490     |                    | 559,0                                              | 632,6                                              |
| - load-wear index, N, min                                   |               |                    | 2685,0                                             | 5508,0                                             |
| - weld point, N, min                                        |               |                    | Not standardized, the definition necessarily       | 0,4                                                |
| - wear scar diameter, 392 N, 60 minutes, mm                 |               |                    | Not standardized, the definition necessarily       | 0,5                                                |
| - wear scar diameter, 588 N, 50 minutes, mm                 |               |                    | Not standardized, the definition necessarily       | 879,6                                              |
| Density at 20 °C, kg/m <sup>3</sup>                         | ASTM D 4052   |                    | Not standardized, the definition necessarily       | 882,8                                              |
| Density at 15 °C, kg/m <sup>3</sup>                         | ASTM D 4052   |                    | Not standardized, the definition necessarily       |                                                    |
| Appearance                                                  | Visual        |                    | Bright and clear liquid without foreign substances | Bright and clear liquid without foreign substances |
| Self-ignition point, °C, min                                | GOST 12 1-044 | 165                | 165                                                | 348                                                |

Conclusion: Gear oil Gazpromneft GL-5 80W-90 The product meets the requirements of Technical regulations of the Customs Union 030/2012 and STO 84035624-068-2012, revision 1-3

Shelf life - 5 years from date of manufacture

Sampling conditions - GOST 2517-2012

Storage conditions - GOST 1510-84

Manufacturer: "Gazpromneft-lubricants", LTD, Russia, 644040, Omsk, avenue Gubkina, 1.

Testing Laboratory: Laboratory of oil and petrochemistry, accreditation certificate № RA.RU.518884 from 18.11.2016. 1, Gubkina avenue, Omsk, 644040, Russia

Head of shift Laboratory:

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КОПИЯ ВЕРНА

