

# CONSTRUCTION OF A CATALYST PRODUCTION FACILITY

# IMPORT SUBSTITUTION

# OF OIL REFINING CATALYSTS

## ESTABLISHING TECHNOLOGICAL LEADERSHIP

Construction began on a new production facility for oil refining catalysts in Omsk in 2017. The existing production facility's capacity is 3,000 tonnes of catalysts per year. The new complex will increase that output to 21,000 tonnes. It will produce catalysts for catalytic cracking and hydrogenation processes – the key technological stages in oil refining. Omsk is home to Russia's only engineering centre that tests catalysts for oil refineries, which is equipped with a pilot catalytic cracking unit.

Roughly 20-40% of the catalysts will be supplied to the Company's own enterprises. Gazprom Neft will be able to sell the rest on the domestic market and export them. This high quality of the catalysts, which are on a par with the products of global leaders in terms of quality, will make exports possible. The Company has its own research laboratory and long-term cooperation agreements with leading research institutes in Russia. This highly economical and energy efficient catalyst production technology has no analogues in the world. The Russian Ministry of Energy has granted national status to the project.

### Catalytic cracking catalysts:

- ensure an increase petrol output by 2-3% and light petroleum oil products by 1-2% compared with imported analogues;
- make it possible to produce petrol with a higher octane number;
- make it possible to process more types of raw materials;
- have a longer service life (up to 10-12 months).

### Hydrotreating catalysts:

- ensure the depth of diesel fuel treatment to sulphur content of <0.001%;
- increase the energy efficiency of hydrotreating;
- reduce the consumption of active metals;
- last 7-8 months longer.

### Hydrocracking catalysts:

- increase the yield of products compared with imported analogues by 3%;
- make it possible to lower process temperatures compared to imported catalysts by 10°C.

## Strategic cooperation for the development of catalysts

### Technology C.3

## 10 patents

REGISTERED FOR CATALYSTS BY GAZPROM NEFT SINCE 2013

## RUB 240 mn

STATE SUBSIDIES FROM THE RUSSIAN MINISTRY OF EDUCATION AND SCIENCE FOR THE DEVELOPMENT OF NEW EFFICIENT HYDROPROCESS CATALYSTS IN 2017-2020

Gazpromneft-Catalytic Systems develops catalysts for oil refining processes in cooperation with the Boreskov Institute of Catalysis of the Siberian Branch of the Russian Academy of Sciences (Novosibirsk), the Institute of Hydrocarbon Processing Problems of the Siberian Branch of the Russian Academy of Sciences (Omsk), the National Scientific Research Institute for Oil Refining JSC (Moscow), and UNISIT LLC (on the core of the chemical laboratory of Lomonosov Moscow State University).

Gazprom Neft PJSC is the patent owner of the developed technologies. Having a reputation as a technological leader enables Gazprom Neft to raise government subsidies in the interests of developing its catalytic business.



**WATCH THE 'EURO-5 OIL REFINING CATALYSTS FOR FUEL PRODUCTION' PROGRAMME AS PART OF THE 'MADE IN RUSSIA' SERIES ON THE RBC TV CHANNEL**

CAPACITY OF THE COMPLEX UNDER CONSTRUCTION

**21,000 2020**

**T PER YEAR, including:**

**15,000**

**T PER YEAR**  
catalytic cracking catalysts

**4,000**

**T PER YEAR**  
hydrotreating catalysts

**2,000**

**T PER YEAR**  
hydrocracking catalysts

COMMISSIONING OF THE COMPLEX

**RUB 23 BN**

INVESTMENT IN CONSTRUCTION



CATALYST PRODUCTION COMPLEX UNDER CONSTRUCTION (OMSK OIL REFINERY)

