PR REFORMING CATALYSTS

Description
Highly selective supported polymetallic reforming catalysts are used to produce reformed gasolines with a low content of high-boiling fractions, olefins, and aromatic hydrocarbons (benzene and toluene). The new-generation polymetallic catalysts are characterized by high sulfur-, coke- and moisture resistance.

Technical specifications of PR-50 and PR-51 catalysts

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pellet diameter, mm</td>
<td>2.8 ± 0.2</td>
</tr>
<tr>
<td>Bulk density [kg/dm$^3$]</td>
<td>0.69 ± 0.2</td>
</tr>
<tr>
<td>Pore volume [cm$^3$/g]</td>
<td>not less than 0.6</td>
</tr>
<tr>
<td>Specific surface [m$^2$/g]</td>
<td>not less than 250</td>
</tr>
</tbody>
</table>

Technical appraisal and economic benefits
As compared to modern commercial catalysts, the use of PR catalysts increases:

- the yield of stable catalysate by 3 - 5 %;
- the yield of hydrogen by 0.7 – 1.0 %;
- the service cycle from 1 year to 2 years;
- the lifetime from 8 to 10 years.

Application areas
Production of high-octane motor fuel components (ON = 95-98) and aromatic hydrocarbons at various types of installations with a steady-state catalyst bed.

Development stage
Industrial production of the catalysts has been launched. The catalysts have been used at refineries in Russia.

Patent situation
Patents were granted in the Russian Federation (1995).

Commercial offers
Sale of licenses for the production of the catalysts; joint catalyst production; catalyst supply.

Estimated cost
To be negotiated.

Contacts
Dr.Sc. Valentina I. Simagina, Head of Coordination Laboratory, Boreskov Institute of Catalysis, Siberian Branch of the Russian Academy of Sciences
5, Prosp. Akademika Lavrentieva, Novosibirsk 630090, Russia
Phone: (383) 330-73-36
Fax: (383) 330-80-56
E-mail: bic@catalysis.nsk.su
http://www.catalysis.nsk.su