BLOOH SOLUTION
LTD.

BS – PLATINUM-BASED

INDUSTRIAL CATALYSTS

HIGH-EFFICIENCY CATALYTIC SYSTEMS FOR CHEMICAL AND ENVIRONMENTAL APPLICATIONS

www.blooh-solution.com

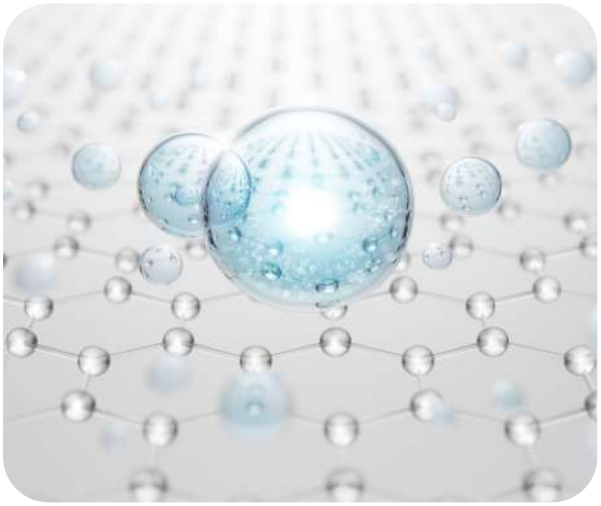
PLATINUM CATALYSTS FOR DEMANDING INDUSTRIAL PROCESSES

From emissions control to fine chemical production, platinum catalysts are the core of many critical industrial processes. These materials accelerate chemical reactions while withstanding extreme temperatures and harsh environments—making them indispensable across various industries.

BLOOH Solution offers a high-performance portfolio of platinum-based catalysts tailored to meet the rising demands of modern industry. Whether in batch reactors or continuous flow systems, our solutions ensure reliable and long-lasting catalytic performance—even under complex operating conditions.

Our formulations offer exceptional selectivity and conversion rates, lower reaction barriers, and minimize by-products. Designed for sustainability and scalability, our catalysts drive innovation across energy, chemical, and pharmaceutical sectors.

INNOVATION THROUGH MATERIAL SCIENCE



BLOOH Solution develops its catalysts with a dedicated focus on surface morphology, the density of active sites, and carrier materials. We combine the exceptional chemical resistance of platinum with targeted nano-dispersion and substrate compatibility—ensuring high conversion rates and stable long-term performance.

Our development methodology is based on the close integration of computer-aided material simulation, precise lab synthesis, and industrial-scale production. This enables us to validate new carrier and coating concepts faster and optimize them for practical applications.

In addition, we collaborate with international research institutions to better understand catalytic processes at the molecular level and to strategically prepare for future applications—such as in circular chemistry or CO_2 reduction.

KEY ADVANTAGES

- High selectivity and catalytic activity
- Reusability and regenerability over multiple cycles
- Optimized for aggressive chemical environments
- Available as granules, pellets, or monoliths

Each catalyst is tested under real-world conditions to ensure durability, thermal stability, and regenerability.

PORTFOLIO

PC-CHEM 75 – CATALYST FOR FINE CHEMICAL SYNTHESIS

Specifically developed for selective hydrogenation and oxidation reactions in pharmaceutical and specialty chemical production. The platinum-based active formulation offers excellent activity, high selectivity, and prevents unwanted side reactions. With extremely low metal leaching and high thermal stability, PC-CHEM 75 is ideal for purity-critical processes that demand top-tier product quality and reproducibility. Its robust structure allows reliable performance across multiple cycles—even under demanding process conditions.

TECHNICAL SPECIFICATION

Active Metal: 0.75% Pt

Carrier: Alumina or carbon support

Specific Surface Area: >120 m²/g

Temperature Range: 80–200°C

Regenerable: Yes (5–7 cycles)

Application Areas: API synthesis, fragrance intermediates, batch processes

By targeting specific reaction mechanisms, this catalyst ensures high product yield and short reaction times—ideal for operations focused on flexibility and high active ingredient purity.

PORTFOLIO

PC-ENVIRO 45 – CATALYST FOR EMISSIONS CONTROL

Specifically formulated for the effective treatment of industrial exhaust gases, this high-performance catalyst reduces concentrations of nitrogen oxides (NOx), volatile organic compounds (VOCs), and carbon monoxide (CO) even under demanding operating conditions. With its optimized channel structure and active coating, it operates with minimal pressure drop, enables consistently high throughput, and delivers exceptional service life—even at high temperatures and flow volumes.

TECHNICAL SPECIFICATION

Active Metal: 0.45% Pt + rhodium blend

Carrier: Ceramic honeycomb structure

Operating Temperature: 250–600°C

Efficiency: >90% reduction of NOx and VOCs

Service Life: Over 30,000 operating hours

Application Areas: Cement plants, industrial boilers, chemical exhaust treatment

The combination of thermal stability and catalytic efficiency makes this catalyst a top choice for emission-intensive industrial processes. Its structure also reduces maintenance needs and operational costs.

PORTFOLIO

PC-SYNAM 60 – CATALYST FOR AMMONIA SYNTHESIS

This specially developed high-temperature catalyst enables highly efficient conversion of hydrogen and nitrogen, as required in ammonia synthesis and hydrogenation processes. The platinum-reinforced active matrix ensures maximum activity even at lower system pressures and significantly reduces the formation of sinter structures over extended operating cycles. The thermally stable carrier structure ensures uniform temperature distribution and consistently high reaction yields during continuous operation.

TECHNICAL SPECIFICATION

Active Metal: 0.6% Pt on iron composite

Carrier: High-density sintered metal support

Operating Temperature: 400–520°C

Maintenance Interval: >2 years

Conversion Efficiency: 15–20% per pass at low pressure

Application Areas: Ammonia plants, fertilizer production, hydrogen utilization

This solution ensures stable process control under high throughput while reducing energy consumption. Especially suitable for large-scale plants operating in continuous mode.

DRIVING INNOVATION FORWARD!

FOR MORE INFORMATION PLEASE CONTACT:

BLOOH Solution Ltd.
1055 Dunsmuir St
Vancouver, BC V7X 1L4

Tel: +1 604 260 6692