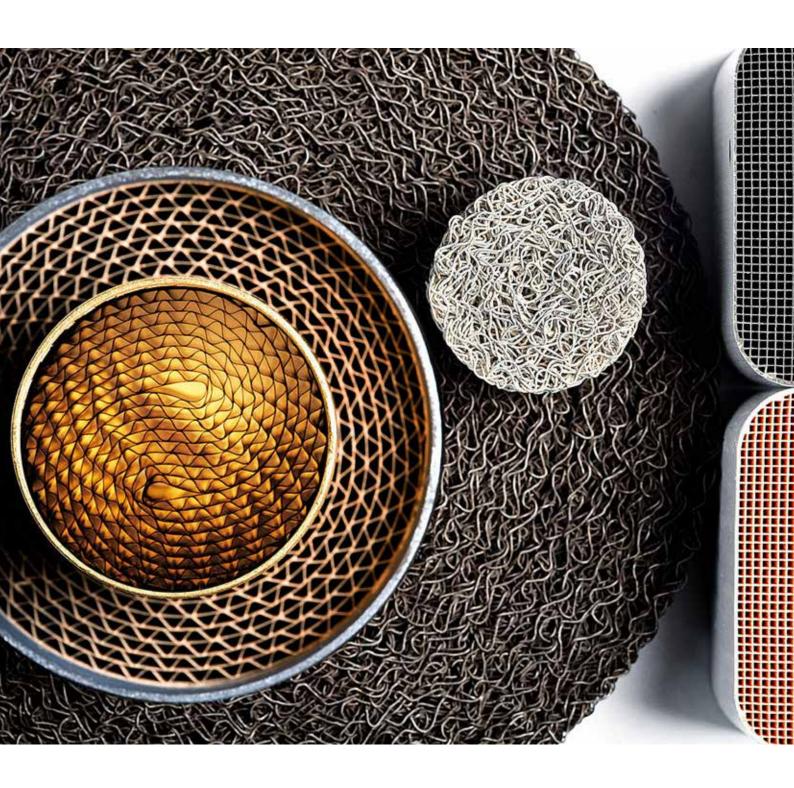
Heraeus Precious Metals



HeraPur® Emission Catalysts

Customized Solutions for a Wide Range of Applications

PRODUCT PORTFOLIO

Heraeus' customized solutions combine innovative substrate concepts, exceptional washcoat technology, and well-matched coating processes to guarantee optimal performance and emission control across various sectors.



Small Engine Catalysts 2-Stroke small engines 4-Stroke small engines

Three Way Catalysts
Small Engines, Motorbikes & IAM,
System Integrators



Particle Filters
IAM, System Integrators,
Special Applications



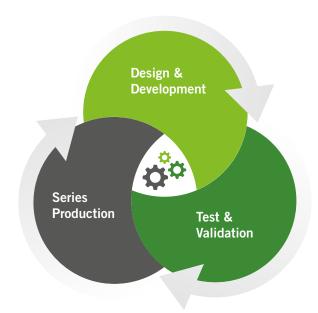


HERAPUR® CATALYSTS

The catalyst plays a crucial role in ensuring environmentally friendly exhaust systems that comply with current and future emission regulations. Heraeus, as a fast and flexible development partner for emission catalysts, provides the perfect solution to bring your innovations to market swiftly.

Customer-specific solutions that go beyond a standard product require individualized catalyst optimization. Targeted selection of the best catalyst with the highest efficiency – that's what the experts of Heraeus do! An intelligent combination of innovative substrate concepts, outstanding washcoat technology and sophisticated coating process leads to high-quality products with long-term stability. It is our passion to select and put into effect the best combination for you

from a large range of our own precious metal compounds of platinum, palladium, rhodium and ruthenium



- to different formulation and coating technologies
- and various shaped substrates of different types and geometries (e.g. metal or ceramic honeycombs, knitted wire structures and bulk material)









COATED CATALYSTS FOR A WIDE RANGE OF APPLICATIONS

Heraeus offers a diverse range of HeraPur® catalysts, featuring versatile applications across various industries.











SMALL ENGINES

- Chain saws
- ✓ Leaf blowers
- ✓ Brush cutters
- **v** ...

POWERSPORTS

- ✓ Motorbikes
- ✓ ATVs
- ✓ UTVs
- Marine Applications

IAM & TUNING

- Automotive Motorsports
- ✓ Independent Aftermarket (IAM)

STATIONARY EMISSION & SYSTEM INTEGRATORS

- ✓ Roasters
- ✓ Smokehouses
- ✓ VOC reduction

HYDROGEN

- Reforming
- ✓ H₂ Tail-gas burners
- ✓ H₂ Boil-off catalysts



COATED CATALYSTS: HERAEUS ROLE IN THE VALUE CHAIN



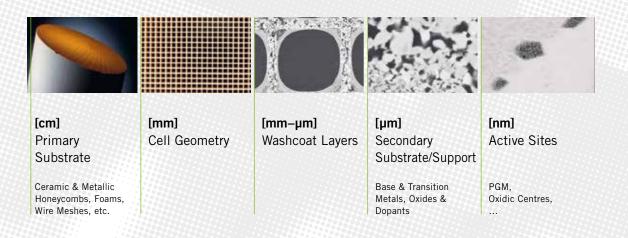
HERAEUS EXPERTISE IS IN COATING FROM RAW MATERIALS TO FINISHED CATALYST





HONEYCOMB CATALYSTS: CATALYST COATING

Honeycomb catalysts play a crucial role in reducing harmful emissions. They are a key component in emission control systems, providing a large surface area for efficient catalytic reactions. However, designing effective honeycomb catalysts poses several challenges that require careful consideration and innovative solutions.



JOINT PROCESS, ACTIVE PARTNERSHIP

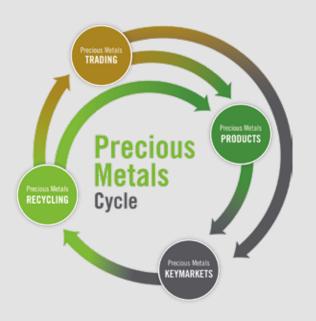
We develop customized solutions through active partnership, contributing our applications expertise, experience and continuity.

- Efficient, tailor-made solutions fully adapted to your project
 - Expert catalyst design and system design support
 - Rapid prototyping and pre-production sampling
 - Test evaluation support and physicochemical catalyst analysis
- ✓ Long-term experience and strong expertise in precious metals and its applications
 - Broad precious metals know-how and expertise in precious metals trading and handling
 - Offering the full precious metals cycle inhouse – from sourcing to recycling
 - Customer trainings

 Further development and optimization with our experienced R&D

Partner with Heraeus and experience the excellence of our catalyst solutions, tailored specifically to your needs.





CLOSING THE LOOP WITH PRECIOUS METALS RECYCLING

As specialists in the handling of spent precious metal catalysts, Heraeus offers the fastest possible precious metal recovery and the highest yield. The reclaimed precious metal can be re-used for the manufacture of new catalysts. Catalyst recycling is not only cost competitive, but also ecological. The recycled secondary precious metal can reduce the carbon footprint by up to 98% in comparison to primary precious metal from mining.

ABOUT HERAEUS PRECIOUS METALS

Heraeus Precious Metals is globally leading in the precious metals industry. The company is part of the Heraeus Group and covers the value chain from trading to precious metals products to recycling. It has extensive expertise in all platinum group metals as well as gold and silver.

With about 3,000 employees at 15 sites worldwide, Heraeus Precious Metals offers a broad portfolio of products that are essential for many industries such as the automotive, chemicals, semiconductor, pharmaceutical, hydrogen and jewelry industry.

By 2025 Heraeus Precious Metals will be the first company in the industry that operates carbon neutral.

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