



HeraPur® Catalysts for Two-Stroke Small Engines

High efficiency for a cleaner tomorrow

Service and support

For more than a decade, Heraeus has been the global market leader for catalysts for two-stroke small engines. Our main business areas are Europe, Asia and the USA. Moreover, we have always maintained close relationships with research institutes, universities across Europe and, of course, our customers in order to be at the forefront of the latest technologies.

Based on your engine specification and muffler design, we provide highly efficient state-of-the-art catalytic coatings to enhance our customers' products.

Applications

Our product portfolio consists of catalysts for construction, forest and garden equipment, e.g. chain saws, leaf blowers, brush cutters or lawn mowers. As we are not restricted to the above mentioned equipment, we can also help you to meet the emission regulations for your special application.

Performance and solutions

Heraeus catalysts have been field-tested for years and demonstrate a proven track record for many applications in Europe, Asia and the United States.

Production capability

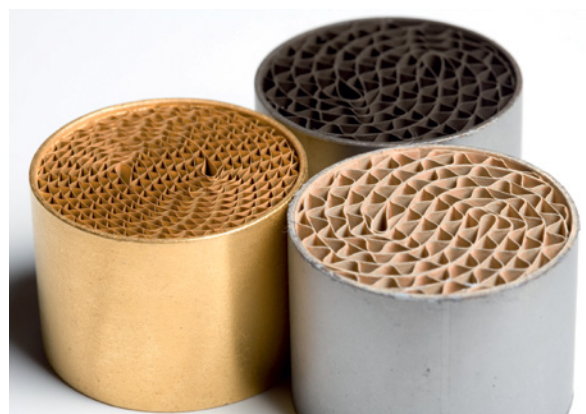
Heraeus, as global market leader, develops catalysts with customised precious metal loadings in varying degrees of platinum, palladium, and rhodium.

Our production process stands out due to its high flexibility and reliability. We mainly coat prismatic knitted wire for well-priced products and metal honeycombs for ambitious applications.

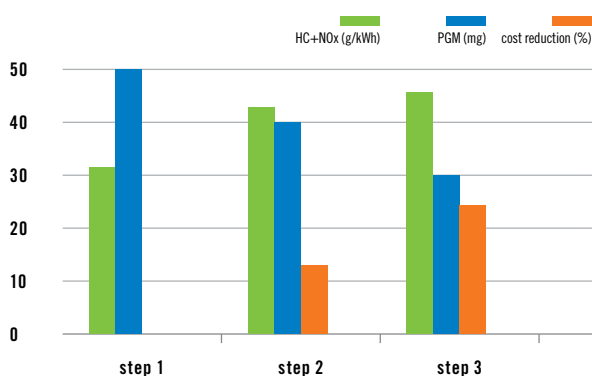
Research and development

Our R&D centre is located in Hanau, Germany. We are constantly working on novel washcoat formulations and coating techniques for our global customers. We work closely with our partners to meet the requirements of our clients' applications which ensures that their demands are satisfied and that we are at the forefront of the latest technologies. Therefore we can look back on numerous co-operations with leading equipment manufacturers.

Heraeus developed knitted wire catalysts for 300 hours small engine applications that are commonly subjected to high priced metal honeycombs. Although we have achieved a significant cost reduction, a high catalytic performance is assured.



Cost reduction steps (EPA phase III class III 300 h application)



Current solutions for two-stroke small engines

Emission regulation	Inner dimensions (mm)	PGM loading (g/ft ³)	PGM relation (Pt/Pd/Rh)	Remarks
EU 2	30 x 34 x 15	90	4/10/1	knitted wire
US 2	30 x 34 x 9.25	70	0/1/0	knitted wire
US 2	30 x 17 x 18	45	1/20/1	knitted wire
EU 2	28 x 20 – 300 cpsi	33	0/1/0	honeycomb
EU 2	35 x 25 – 300 cpsi	65	0/10/1	honeycomb
EU 2	28 x 20 – 300 cpsi	150	0/10/1	honeycomb

Emission standards

g/kWh	Non-handheld						Handheld					
	EU				USA		EU			USA		
Displ. cc	<66	<100	<225	>225	<225	>225	<20	<50	>50	<20	<50	>50
CO	610	610	610	610	610	610	805	805	603	805	805	603
HC+NOx	50	40	16.1	12.1	10	8	50	50	72	50	50	72
NOx	10	10	10	10			10	10	10			

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