



HeraPur® Diesel Particle Filters



High efficiency for a cleaner tomorrow

Today, one of the biggest challenges facing Heraeus are the steadily tightening global emission limits regarding the treatment of diesel and lean burn exhaust gas which differ depending on the country.

Heraeus steps up to the plate with its HeraPur® portfolio which provides customised coating solutions for particle filters (DPF) and you can rely on the high quality of our products which meet the highest standards in activity and long-term stability.

HeraPur® coatings are a result of our long-term experience with systems designed for hydrocarbon injection, passive regeneration of particle filters, or for support of fast-SCR. As part of our HeraPur® coating portfolio, we provide filter coatings for various temperature ranges and thereby optimised solutions for different filter regeneration strategies. The PGM-free HeraPur® soot ignition coating can replace precious metal coatings, especially at higher temperatures – ideally it can be used to support soot ignition with a burner system or such with fuel injection.

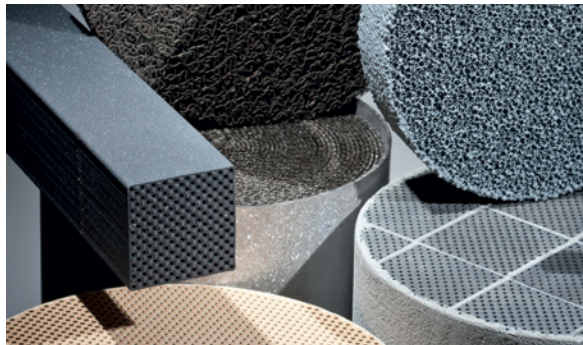
Heraeus catalyst portfolio – diesel

Diesel engine	Diesel oxidation catalyst (DOC)	Diesel particle filter (DPF)
		
Substrates	metallic/ceramic honeycombs	full & partial DPF substrates
Abatement*	HC, CO, SOF	PM, SOF
Coating	precious metal coating	precious metal or base metal coating (optional)
Strategy**	DOC performance options: retrofit, CRT type, HC injection	DPF regeneration strategies: CRT type, HC injection, fuel burner-system

* **HC:** hydrocarbons, **CO:** carbon monoxide, **SOF:** soluble organic fraction, **PM:** particulate matter, **NOx:** nitrogen oxides

** **CRT:** continuously regenerating trap, **HCi:** hydrocarbon injection, **ASC:** ammonia slip catalyst

The ingenious combinations of either a particle filter with a HeraPur® coated oxidation catalyst or a merging with a wall flow filter, guarantee maximum performance.



Substrates and filtration efficiencies

Wall flow filters can reduce the particulate matter by more than 95 %, reaching a reduction of nearly 99 % in the automotive field. If you only need an efficiency of 30–70 %, partial filters offer a suitable alternative – finitely increasing in counter-pressure at maximum soot loading. Thanks to our reliable and flexible production process, we are able to coat a large variety of filter types of all geometries and sizes.

Service and support

Heraeus would gladly support your choice of the right regeneration strategy and proper filter design for specific engine parameters and predefined exhaust limitation targets.

	Type	Size	PGM	PGM loading	Legislation	Qualification
Wall-Flow DPF						
CRT type	H1444	2.5–5 L	10–15 g/ft ³	pt-only	EU 3/4	passenger car, aftermarket
	H14XX	2.5–5 L	10–35 g/ft ³	4:1	EU 4	passenger car, aftermarket
Bridge	H1457	4–25 L	15–25 g/ft ³	pt-only	CARB + VERT	off-road HDD, (VERT)
Stationary	H507	5–30 L	free	mixed oxide	TA-Luft	marine, stationary
SCR	H10XX	2.5–12 L	free	mixed oxide	EU 5	off-road HDD
Partial DPF						
	FWP35		40-80 g/L	pt-only	CA auxiliary	CARB certification
	H1444	2–4 L	20-30 g/ft ³	pt-only	EU 4	passenger car, aftermarket
	FWP67			pt-only		automotive OE

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