



Actydon | Platinum

Electrocatalysts for Electrolyzers and Fuel Cells

Heraeus' product portfolio includes fuel cell catalysts with different precious metal loadings, which provide numerous benefits to your application. In order to find the perfect solution for your needs, you can conduct tests in Heraeus' fully equipped on-site laboratories and test center.

Heraeus' fuel cell catalysts provide dedicated solutions for PEM fuel cells addressing the various requirements of anode and cathode:



ACTIVITY

Efficient use of platinum in different catalyst concepts helps to gain highest performance.



STABILITY

Achieve long lifetime for your application by using catalyst designed for best stability and reliability.



CELL REVERSAL TOLERANCE

This feature protects the anode by allowing significantly lower damage throughout time.

A comprehensive product portfolio to fit your needs

Catalyst	Description	Highlight	ECSA [$\text{m}^2/\text{g}_{\text{Pt}}$]	Cell voltage @ 0.1 A/cm ² (CCM) [V]
Actydon Pt C100 + Actydon Ir 80 X	20 to 40 wt.% Pt on graphitized carbon material for PEMFC anode – optional with OER additive	High cell reversal tolerance > 8000 s (15 $\mu\text{g}_{\text{Ir}}/\text{cm}^2$) (~75 s w/o OER additive)*	> 40	~ 0.80
Actydon Pt C240	20 to 50 wt.% Pt on medium surface area carbon	Highly accessible Pt particles	> 60	~ 0.84
Actydon Pt C700	20 to 60 wt.% Pt on high surface area carbon	Optimized Pt surface utilization → High ECSA	> 70	~ 0.84
Actydon Pt M700	40 to 50 wt.% stabilized Pt on high surface area carbon	Improved Pt dissolution stability	> 60	~ 0.84
Actydon Pt 50 K700	50 wt.% PtCo on high surface area carbon	Higher Pt-dissolution stability compared to established PtCo/C catalyst	> 45	~ 0.84**
Actydon Pt 50 C720	50 wt.% Pt on high surface area carbon support	High performance under various conditions even dry ones	> 75	~ 0.87

*Cell reversal tolerance time until -1.25 V_{cell}

**At 0,2mg_{Pt}/cm²

For more detailed information about our broad product portfolio, please contact our sales experts.

Heraeus Precious Metals GmbH & Co. KG

Heraeusstraße 12–14

63450 Hanau, Germany

hydrogen.systems@heraeus.com



heraeus.pm/en-hydrogen-systems