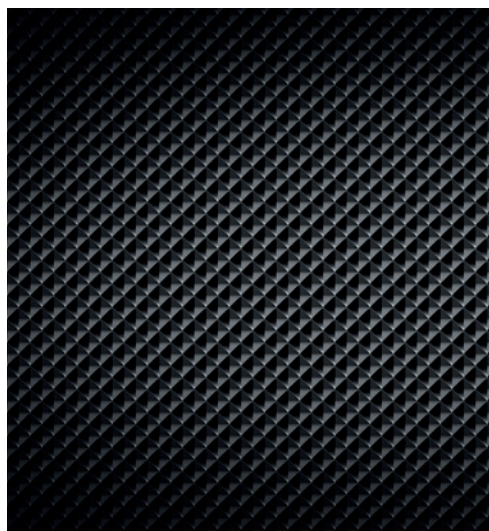


Decarbonization – Hythin™ Iridium



Thin film catalytic and conductive coating for anode-side catalyst layer application in PEM electrolyzers

Hythin™ Iridium is a thin film coating developed for anode-side catalyst layer applications in PEM electrolyzers. The coating is designed for porous transport layers (PTLs) operating under highly oxidative and electrochemically demanding conditions in hydrogen production systems.

Hythin™ Iridium enables conductive and catalytic surface functionality for critical electrolyzer components. The coating achieves very low interfacial contact resistance while supporting stable electrochemical performance on the anode side of the MEA.

Performance

Hythin™ Iridium is optimized for anodic environments where corrosion stability and electrochemical activity are essential for electrolyzer efficiency. The iridium-based coating supports conductive and catalytic surface behavior under aggressive operating conditions associated with oxygen evolution reactions. The coating can be applied on porous transport layers with controlled thin film deposition across complex surface structures. This contributes to stable electrical contact, efficient catalyst utilization and reliable long-term stack operation in PEM electrolyzer systems. Efficient target material use and recycling options can be discussed with our experts.

Technical Data

Material	Ir
Technology	PVD (Sputtering + Alternative methods)
Thickness range	On request
Process temperature	< 200 °C
Color	Dark metallic grey
Application reference	Anode-side catalyst layer application in PEM electrolyzers
Lifetime potential	25.000+ hours

The values given are approximations and may vary depending on the application, environmental factors and test protocols.