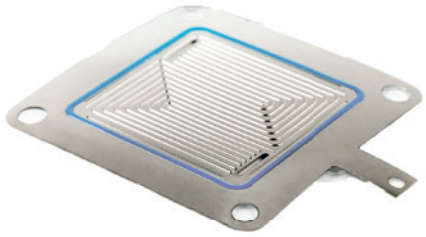
ionbond

Decarbonization – Hythin™ Platinum

Thin film PVD coating for PEM fuel cells and PEM electrolyzers

Hythin™ Platinum is a thin film PVD coating developed for high-performance conductive surfaces in hydrogen PEM fuel cells and PEM electrolyzers. The coating provides excellent electrical conductivity for metallic bipolar plates, end plates, current collectors and porous transport layers (PTLs).

Hythin™ Platinum is designed for electrochemically demanding environments in PEM fuel cells and PEM electrolyzers. The coating achieves very low interfacial contact resistance while supporting efficient current transfer across critical stack components.



Performance

Hythin™ Platinum is optimized for applications where conductivity, catalytic functionality and surface stability directly influence electrochemical stability. The platinum-based coating enables highly conductive interfaces for components operating under demanding PEM conditions.

The ultra-thin coating layer supports precise surface engineering on metallic and porous substrates while perfectly following the substrate geometry. This contributes to efficient current distribution, stable contact behavior and reliable long-term operation in hydrogen conversion systems.

Technical Data

Material	Pt
Technology	PVD (Sputtering)
Thickness range	10 – 200 nm
Process temperature	< 200 °C
Color	Metallic platinum
Application reference	High-performance conductive coatings for PEM fuel cells and PEM electrolyzers
Lifetime potential	25.000+ hours

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