

Decarbonization – Hythin™ Carbon



Thin film PVD coating for metallic bipolar plates in fuel cells and redox flow batteries

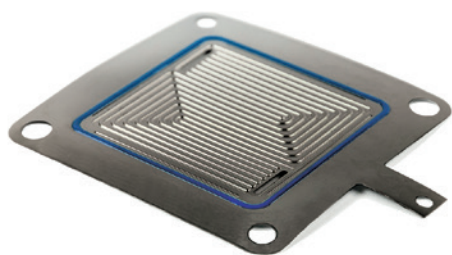
Hythin™ Carbon is a thin film PVD coating developed to create a conductive and corrosion-resistant surface in hydrogen and decarbonization systems. The coating combines high electrical conductivity with reliable corrosion protection for metallic bipolar plates, end plates and current collectors.

Hythin™ Carbon is designed for demanding operating conditions in PEM fuel cells and redox flow batteries. The coating achieves very low interfacial contact resistance while maintaining stable performance in corrosive environments.

Performance

Hythin™ Carbon supports reliable electrical performance in demanding hydrogen and rechargeable energy storage applications. The coating is engineered to minimize interfacial contact resistance while protecting metallic components exposed to corrosive operating conditions.

The thin and uniform coating structure contributes to efficient current transfer and stable long-term operation.



Technical Data

Material	TiC
Technology	PVD (Sputtering + ARC)
Thickness range	100–400 nm
Process temperature	< 250 °C
Color	Grey to dark grey
Application reference	Corrosion protection and conductive coatings for PEM fuel cells and redox flow batteries
Lifetime potential	20.000 – 25.000 hours

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