

Decarbonization – Hythin™ Nickel



Thin film PVD coating for metallic bipolar plates in AEM electrolyzers

Hythin™ Nickel is a thin film PVD coating developed for conductive and cost-efficient surfaces in hydrogen production systems. The coating provides reliable electrical conductivity for metallic bipolar plates used in AEM electrolyzers.

Hythin™ Nickel is designed for scalable electrolyzer production and stable conductive performance in alkaline operating environments. The coating offers an economical alternative for conductive stack components in industrial hydrogen applications.

Performance

Hythin™ Nickel is optimized for AEM electrolyzer systems where conductive performance and cost efficiency are both critical for large-scale deployment. The nickel-based coating provides stable electrical contact for metallic bipolar plates operating in alkaline conditions.

The coating supports efficient current distribution while maintaining a thin conductive surface layer on precision components. Its economical material composition makes Hythin™ Nickel suitable for high-volume hydrogen technologies focused on industrial scalability and operational efficiency.

Technical Data

Material	Ni
Technology	PVD (Sputtering)
Thickness range	250 – 1000 nm
Process temperature	< 300 °C
Color	Silvery-grey to metallic silver
Application reference	Cost-effective conductive coatings for AEM electrolyzers

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