

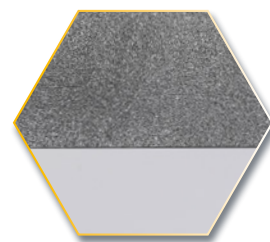
MATERIAL DATA SHEET

POROUS TRANSPORT LAYERS FOR PEM-ELECTROLYZER

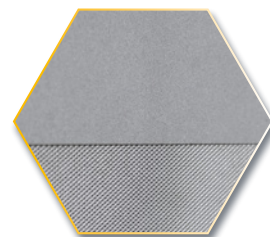
GKN Powder Metallurgy develops and supplies innovative Porous Transport Layers (PTLs) for PEM electrolysis, specifically engineered to enhance the efficiency and performance of your systems.

Our PTLs are fully customizable to your required dimensions, ensuring a perfect fit for your electrolyzer.

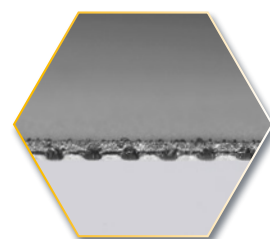
**GKN Powder Metallurgy –
Your Partner for Advanced
PEM Electrolysis Solutions.**



POROUS STRUCTURE
CROSS SECTION



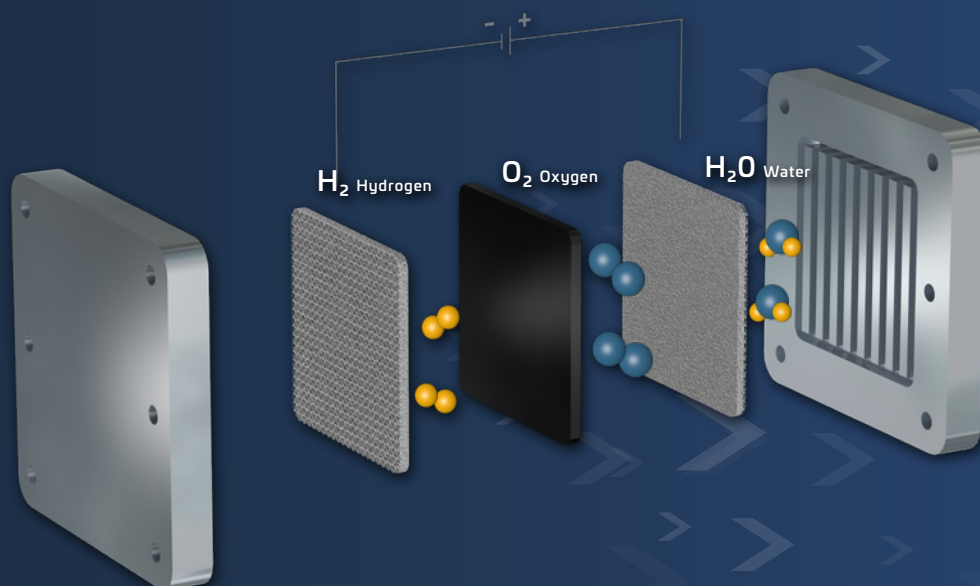
POROUS STRUCTURE
OVERVIEW



CROSS SECTION SUPPORT
STRUCTURE

With GKN Powder Metallurgy's PTL, you benefit from a unique porous metal structure that significantly reduces both mass transport and electrical resistance. Additionally, the surface structure enhances membrane contact, allowing for lower iridium catalyst loading, reducing costs and improving sustainability.

The multi-layer design of our PTLs also ensures easy handling while providing significant advantages in cycle stability and durability.



MATERIAL DATA SHEET

ADVANTAGES OF GKN POWDER METALLURGY PTL TECHNOLOGY



> Integrated Multi-Layer Design:

Combines multiple layers into a single structure.



> Reduced Costs:

Decreases CAPEX and OPEX through improved material efficiency.



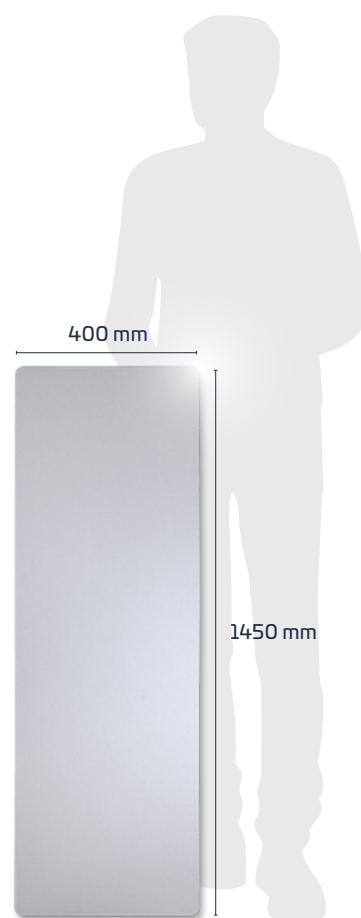
> Lower Catalyst Usage:

Reduces iridium requirements, resulting in significant cost savings and improved sustainability.

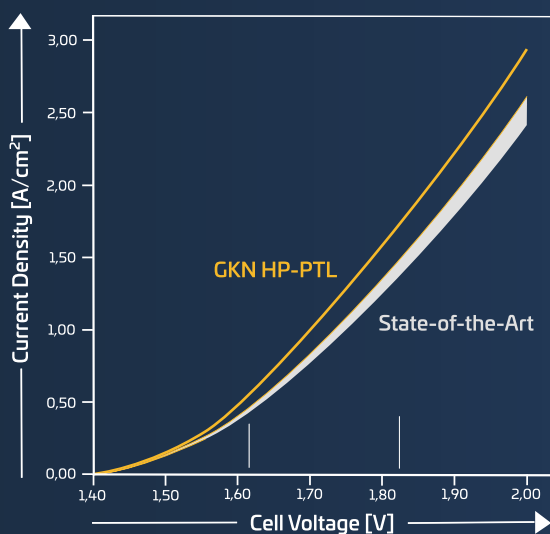


> Optimized Performance:

Delivers higher current density at the same voltage while reducing heat output, enhancing overall system performance.



Current-Voltage-Performance



Sizes:

Length: ≤ 1400 mm
Width: ≤ 400 mm
Height: > 0,6 mm

Porosity:

40-50 %

Material:

titanium grade 2

Expanded metal:

configuration depending on requirements

