

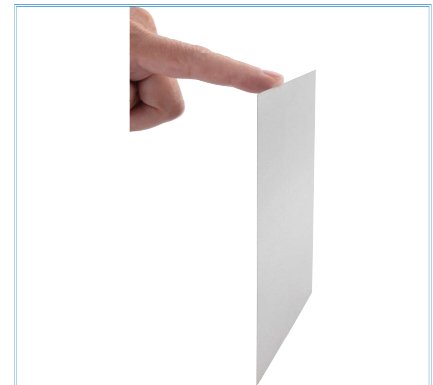
POROUS TRANSPORT LAYER PERFORMANCE ADVANCES PROTON EXCHANGE MEMBRANE DEVELOPMENT

OVERVIEW:

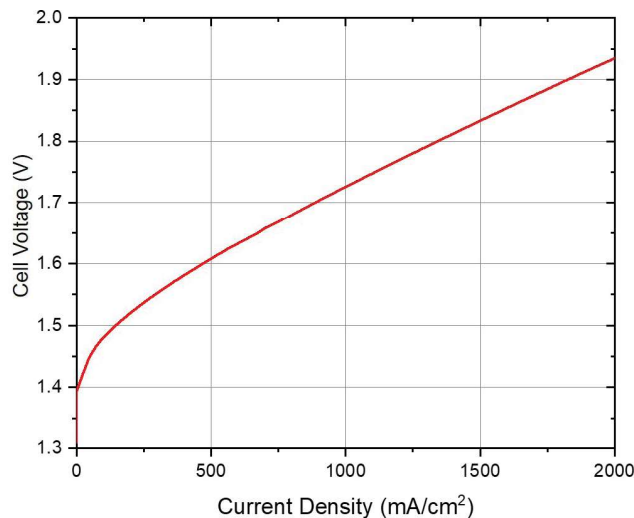
Porous transport layers (PTLs) from Mott achieve high power densities in gas generation applications due to a proprietary ultra-thin design resulting in better mass transport and a smaller footprint. Due to proprietary design and manufacturing techniques, Mott PTLs are manufactured down to .254 mm (.010") thickness, over 50% thinner than other sintered porous metal suppliers, which provides better permeability and performance. Mott PTLs are made from sintered powder metal allowing for the best mechanical strength without compromising on performance.

TESTING PARAMETERS:

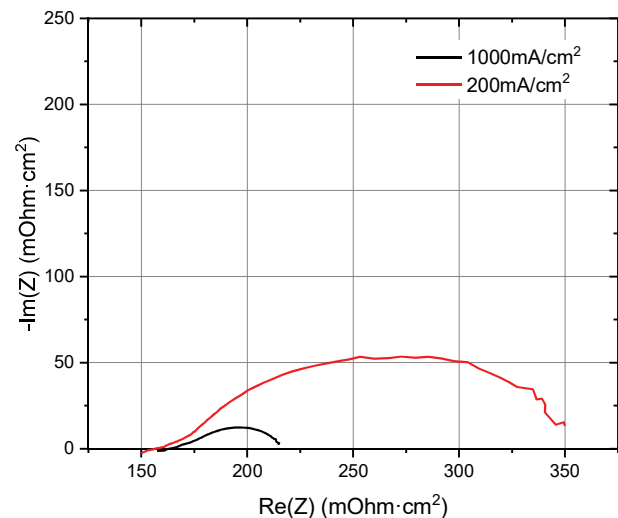
Porous Material:	Titanium Grade 2 Sheet	Sheet Thickness:	.254 mm / .010"
Membrane:	N117	Temperature:	80°C / 176°F
Anode Catalyst:	IrRuOx, 3.0 mg/cm ²	Pressure:	1 atm
Cathode Catalyst:	Pt/black, 3.0 mg/cm ²		



PERFORMANCE



EIS (Electrochemical Impedance Spectroscopy)



TEST RESULTS:

Mott's ultra-thin PTLs achieved performances similar to other commonly used materials, but much better mechanical strength at reduced thickness. Mott's sheet can also be easily modified for improved conductivity and long-term stability by coating with oxidation resistant materials.

Consult with a Mott representative to learn more about customizing our PTLs for your gas generation application.