POROUS TRANSPORT LAYERS FOR PEM ELECTROLYSIS

OVERVIEW:

Porous transport layers (PTLs) from Mott are preferred in electrolysis applications due to an ultra-smooth design resulting in improved catalyst utilization and extended stack lifetime. Using proprietary design and manufacturing techniques, Mott PTLs are manufactured from sintered powder metal allowing for outstanding mechanical strength without compromising on performance.

KEY PARAMETERS:

Porosity:	15 to 40%
Maximum Standard Length:	76.2 cm (30")
Maximum Width:	40.1 cm (15.8")
Thickness:	0.125 mm (0.005") to 1 mm (0.040")
Thickness Tolerance:	0.001" (0.125 mm)
Surface Roughness:	$10~\mu\text{m}$ (0.005") to 25 μm (0.010" and up) maximum protrusion
Elastic Modulus:	2,400 ksi (16.5 GPa)
Tensile Strength:	5,000 psi (34.5 MPa)



SEM MICROGRAPHS OF PTL SURFACE:



Mott's novel Titanium PTL technology is produced using strict quality standards ensuring a flat sheet with smooth surface finish. These components allow for use at high differential pressures without fear of puncture from imperfections.

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

Baseline PTL Performance



- Efficient Catalyst Utilization
- High Performance at Low Ir Loadings
- Optimized for Next-Gen Thin Membranes
- No Membrane Extrusion up to 30 Bar

