

Gas Diffusion Layer for Fuel Cell PYROFIL™ GDL

Mobility /
Industrial

What is GDL (Gas Diffusion Layer) ?

PYROFIL™ GDL is a multi-functional electrode material that has been optimized for Polymer Electrolyte Fuel Cell (PEFC) and Redox Flow Battery (RFB).

Function and Advantage

- Porous sheet made of chopped carbon fiber
- Distinctive porous structure allows excellent gas diffusion capacity and improved water management
- Superior surface smoothness
- Easily adapted to roll-to-roll process

Packaging specification

Product width : ~350 mm
Roll length : ~300 M
Inside diameter of core : 6 inch (152 mm)



Product Line-up

	Unit	MFK	MFX	MFL	MFK-A	MFX-A	MFL-A
Surface Treatment	-	Non	Non	Non	MPL	MPL	MPL
Thickness	[mm]	0.205	0.170	0.125	0.220	0.190	0.150
Area Weight	[g/m ²]	63	57	39	79	73	55
Bulk Density	[g/cm ³]	0.31	0.36	0.31	0.36	0.38	0.39
Gas Permeability	[mL/cm ² /hr/Pa]	200	950	700	10 *	40 *	30 *
Electrical Conductivity	[mΩ · cm ²]	5.7	5.7	4.5	7.6	7.0	6.5
Compression Thickness	[mm]	0.180	0.140	0.110	0.200	0.160	0.120
Compression Ratio	[%]	88	82	80	91	84	79
MD Bending Strength	[MPa]	39	33	34	35	31	31
TD Bending Strength	[MPa]	27	43	19	25	41	17
Porosity Rate	[%]	83	80	83	80	79	78

Above values represent typical properties, not guaranteed values.

*The gas permeability of MPL products are just for the reference

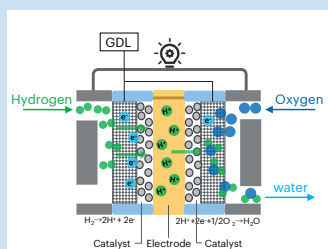
Features and Application Examples

Hydrogen

Water Electrolyzer
Fuel Cell



Ref : Mechanism of PEFC



Storage Battery

Redox Flow Battery
Other secondary batteries



Ref : Mechanism of RFB

