

AvCarb®

MOLDED GRAPHITE LAMINATE

"AvCarb is committed to providing the best performing materials and world-class technical support to innovators in the energy storage market."



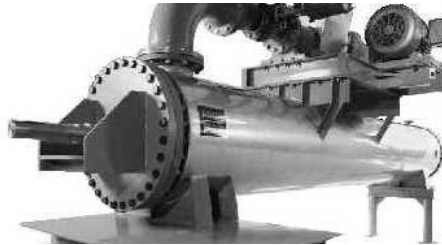
President and CEO
AvCarb Material Solutions

Product Highlights:

- ✓ Low electrical resistivity
- ✓ High flexural/tensile strength
- ✓ Batch-to-batch uniformity
- ✓ High purity
- ✓ Excellent durability

Quick Connections:

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PRODUCT OVERVIEW

AvCarb® Molded Graphite Laminates (MGL) are superior carbon papers designed for electrolyzer and fuel cell applications. Available in stronger and thicker product formats than typical carbon papers, AvCarb® MGLs provide electrochemists with a highly durable electrode backing intended for harsh environments.

With comparable property and performance data, MGL products can be used interchangeably with other industry standard carbon papers. Available in thicknesses ranging from 0.19mm to 0.37mm, these highly graphitic panels are manufactured under both heat and pressure. This process results in a carbon structure that is porous, gas permeable, and is electrochemically active. MGLs have been used for many years in both commercial and military applications around the world with new applications being developed every year.

Contact us today to receive complimentary samples!

MOLDED GRAPHITE LAMINATE

Suggested Uses

- Electrolyzers
- Flow Batteries
- Fuel Cells
- Corrosive Environments

Properties	Unit	MGL190	MGL280	MGL370
Thickness	mm	0.19	0.28	0.37
Bulk Density	g/cm ³	0.44	0.44	0.46
Porosity	%	78	78	78
Gas Permeability	m*mlm/ (cm ² *hr*mmaq)	1900	1500	1500
Gas Permeability	Gurley Sec	2.2	4.5	4.4
Electrical Resistivity (Through Plane)	m*cm	75	80	75
Flexural Strength	MPa	45	40	45
Flexural Modulus	N/cm	15	10	15
Tensile Strength	N/cm	65	90	120

Wind

Water

Solar



Flow Batteries

Energy produced from renewable sources like wind, solar and hydroelectric plants promises to drastically reduce global consumption of fossil fuels. When coupled with an energy storage device like a Flow Battery from ESS Inc., these renewable energy sources offer low-cost, 24 hour on-demand power regardless of the weather. Flow battery developers around the world have designed in AvCarb® MGLs, felts, fabrics and papers to produce high-performance systems designed to last for decades. While individual system architectures may differ, AvCarb® materials are typically used as electrode or bipolar plate backings to promote electrochemical reactions during operation.

