



AvCarb® Gas Diffusion Substrates

AvCarb® Carbon Fiber Papers are used as gas diffusion substrates or electrode backings for fuel cell applications.

The table below lists nominal properties of commercially available AvCarb carbon papers for fuel cells. Please contact us for assistance in selecting the right product for your application or for more information.



Substrate Grade	Units	AvCarb EP40	AvCarb P50	AvCarb P75
Nominal Thickness				
(@ 1 psi / 0.7 N/cm ²)	microns	200	170	245
(@ 7.3 psi / 5.1 N/cm ²)	microns	190	150	205
Nominal Basis Weight				
	g/m ²	36	50	75
Break Strength				
Machine direction	MPa	5.0	5.0	6.5
Cross machine direction	MPa	3.5	3.0	3.9
Stiffness				
Machine direction	Taber	9.5	7.5	20.0
Cross machine direction	Taber	3.5	3.0	3.5
Bulk Density				
(@ 0.69 N/cm ² /1psi)	g/cm ³	.20	.31	.29
Air Permeability (Gurley)				
Through-pane permeability	sec/100cc	4.5	35	15
In-plane permeability	sec/100cc	50.9	295	83
Compressibility				
(22N - 113N)/22 x 100%	%	14.0	11.5	10.7
Through-Plane Resistivity				
	mOhm*cm ²	8.0	6.7	7.8
Typical Roll Width	mm	400/800	400/800	400/800