

LINQCELL GDP090



90- μ m Graphitized Carbon Fiber Paper without MPL

- Ultra-thin thickness (0.09 mm – 90 μ m – 3.54 mil)
- High graphitization temperature (2000 °C)
- Optimized as gas diffusion layers in fuel cells

LINQCELL GDP090 is an ultrathin, 90- μ m thick graphitized carbon fiber paper without a microporous layer, made from high-quality polyacrylonitrile (PAN) fibers. The fibers undergo a wet-laying paper process to form a non-woven, fibrous, and porous structure, which is then carbonized and graphitized at an exceptionally high temperature of 2000 °C. This high graphitization temperature significantly improves electrical conductivity, thermal stability, and oxidation resistance.

The improved properties of **LINQCELL GDP090** make it highly suitable for use as anode and cathode gas diffusion layers in fuel cells. Its ultra-thin design reduces stack volume, enhancing overall fuel cell efficiency by minimizing internal resistance. Additionally, its low thickness combined with high permeability makes it ideal for high humidity fuel cell operation ($\geq 60\%$) at temperatures between 50 to 80 °C. In medium humidity conditions (20 to 60%), **LINQCELL GDP090** performs effectively at lower temperatures (≤ 50 °C), covering stable and efficient fuel cell operation across a wide range of humidity and temperature conditions.

Specifications

Property	Value	Unit	Test Method
Thickness	0.090	mm	ASTM D645
Nominal Basis Weight	55	g/m ²	ASTM D646
Through-plane Resistance	<6	m Ω · cm ²	ASTM C611
Voltage Loss at 500 mA/cm ² and 20 N/cm ²	7	mV	–
Tensile Strength (MD/XD)	15/10	N/cm ²	ASTM D828
Air Permeability	50	s	Gurley
Porosity	68	%	Mercury Intrusion Porosimetry

Storage and Handling

1. Shelf life is more than 2 years if stored in a dry and cool, well ventilated place at room temperature.
2. Do not leave exposed to moisture and sunlight for long periods of time.
3. Do not throw the plate or put heavy pressure on it and the box to avoid breakage.
4. Do not apply uneven pressure on the sheet.

Europe

Industrieweg 15E,
1566JN Assendelft
The Netherlands
Phone: +31 (20) 893 2224
Email: info@caplinq.com

Canada

80 Sirocco Crescent
Ottawa ON, K2S 2C9
Canada
Phone: +1 (613) 482-2215
Email: info@caplinq.com



North America

36927 Schoolcraft Rd
Livonia, MI 48150
United States
Phone: +1 (313) 558-8243
Email: info@caplinq.com

South East Asia

S-08-07 Persiaran Triangle
B Lepas, Penang 11900
Malaysia
Phone: +60 (12) 4302223
Email: info@caplinq.com