

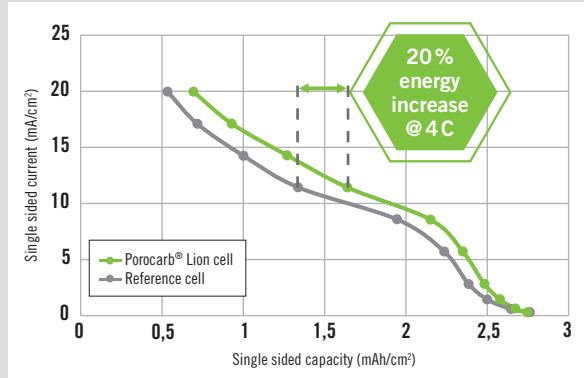


**Porocarb<sup>®</sup> Lion**  
Ionically Conductive Carbon Additive  
for Lithium-Ion Batteries

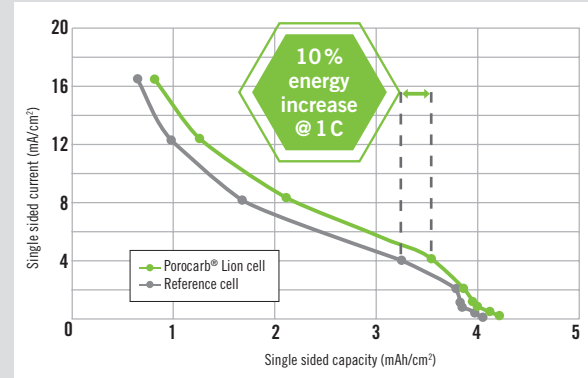
# Porocarb<sup>®</sup> Lion – The unique ionically conductive porous carbon additive

As synthetically derived carbon, Porocarb<sup>®</sup> is designed to maintain ionic and electric pathways in high energy density Li-ion batteries. The open and interconnected porosity helps to overcome diffusion limitations within highly densified electrodes, improving battery performance.

## Intermediate energy case



## High energy case\*



\* Formulation based on customer request for similar electrode conductivity

93.0% NMC | 1.0% CB | 3.0% Porocarb<sup>®</sup> | 3.0% PVDF  
Solid content 66% resulting in viscosity of 5.0 Pa s at 1 s<sup>-1</sup>  
Loading 204 g/m<sup>2</sup> single sided at density of 3.4 g/cm<sup>3</sup>

**Porocarb<sup>®</sup>  
cathode**

95.0% NMC | 0.8% CB | 1.7% Porocarb<sup>®</sup> | 2.5% PVDF  
Solid content 70% resulting in viscosity of 3.4 Pa s at 1 s<sup>-1</sup>  
Loading 288 g/m<sup>2</sup> single sided at density of 3.8 g/cm<sup>3</sup>

93.0% NMC | 4.0% CB | 3.0% PVDF  
Solid content 63% resulting in viscosity of 5.0 Pa s at 1 s<sup>-1</sup>  
Loading 204 g/m<sup>2</sup> single sided at density of 3.4 g/cm<sup>3</sup>

**Reference  
cathode**

96.0% NMC | 1.5.0% CB | 2.5.0% PVDF  
Solid content 69% resulting in viscosity of 3.3 Pa s at 1 s<sup>-1</sup>  
Loading 283 g/m<sup>2</sup> single sided at density of 3.8 g/cm<sup>3</sup>

Typical values	Surface Area (BET) [m <sup>2</sup> /g]	Electrical Conductivity (0.75kN/cm <sup>2</sup> ) [S/cm]	Inner Porosity According to FIB [%]	DV90 Particle size [µm]	Ash content [%]
Method	ISO 9277:10	Internal Heraeus Method	Internal Heraeus Method	Mastersizer 3000	DIN 5171
Porocarb <sup>®</sup> Lion 403	40–60	>4	~30	≤4	< 0.5
Porocarb <sup>®</sup> Lion 210	15–25	>10	~20	≤8	< 0.1



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