

TECHNICAL DATA SHEET

January 2017

C-ENERGY™ Actilion GHDR

IMERYS Graphite

Graphite as active material
for lithium-ion batteries

General Characteristics

Formula: Carbon
Aspect: Fine black powder
CAS number: 7782-42-5

Standard Packaging

300kg, flexible container

Guaranteed Values

Ash	0.1	% max
Moisture	0.2	% max

Typical Values

Purity		
Ash	0.05	%
Moisture	0.10	%

Crystallinity

Lc	>100	Nm
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Density

Tap	1.1	g/cm ³
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Specific Surface Area

BET	4.1	m ² /g
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Particle Size Distribution

D10 (Laser Diffraction)	13	µm
D50 (Laser Diffraction)	17	µm
D90 (Laser Diffraction)	23	µm

Electrochemical Data

Reversible Specific Charge (1st cycle)*	364	mAh/g
Coulombic Efficiency (1 st cycle)*	93	%

*Electrochemical measurement conditions:

- Lithium half-cell, coin-cell design
- Electrode formulation: 1.5 % CMC, 1.5 % SBR, 97% active material, electrode density 1.7 g cm⁻³
- Electrolyte: 1 M LiPF₆ in EC/EMC 1:3 (v/v),
- 1st electrochemical intercalation at 50mA/g to 5mV vs. Li/Li⁺, then constant voltage hold <20mA/g), electrochemical deintercalation at 50 mA/g to 1.5 V vs. Li/Li⁺, then constant voltage hold <20mA/g)

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