IBU | Volt
Power Solutions

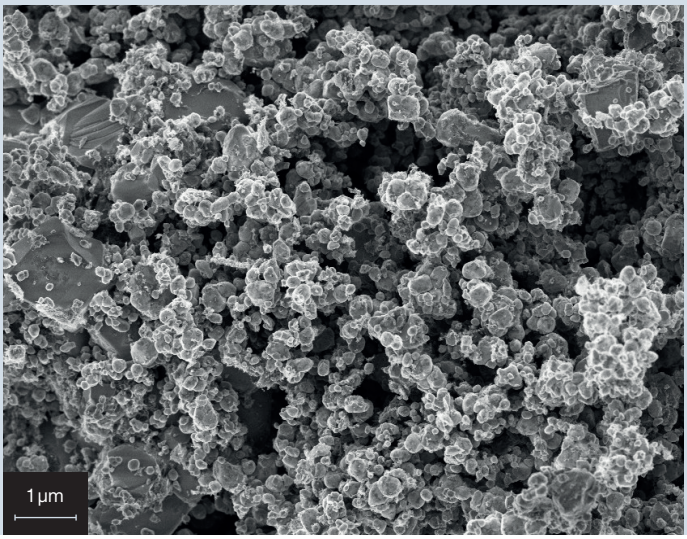
IBUvolt® LFP200

A New Generation of LFP - Made in Germany.

Europe‘s Leading Brand for LFP.

10 YEARS
OF EXPERIENCE IN
BATTERY MATERIALS

Leonie Anding, E-Chemistry Laboratory



LFP200

Highest powder density
2.5 g/cm^3 for max. energy density and compact cell design

Excellent rate capability
Fast charging and discharging without power loss

Long service life
Proven LFP chemistry for superior cycle stability

Safe & sustainable
Thermally stable, cobalt- & nickel-free, environmentally friendly

CHEMICAL & PHYSICAL PROPERTIES

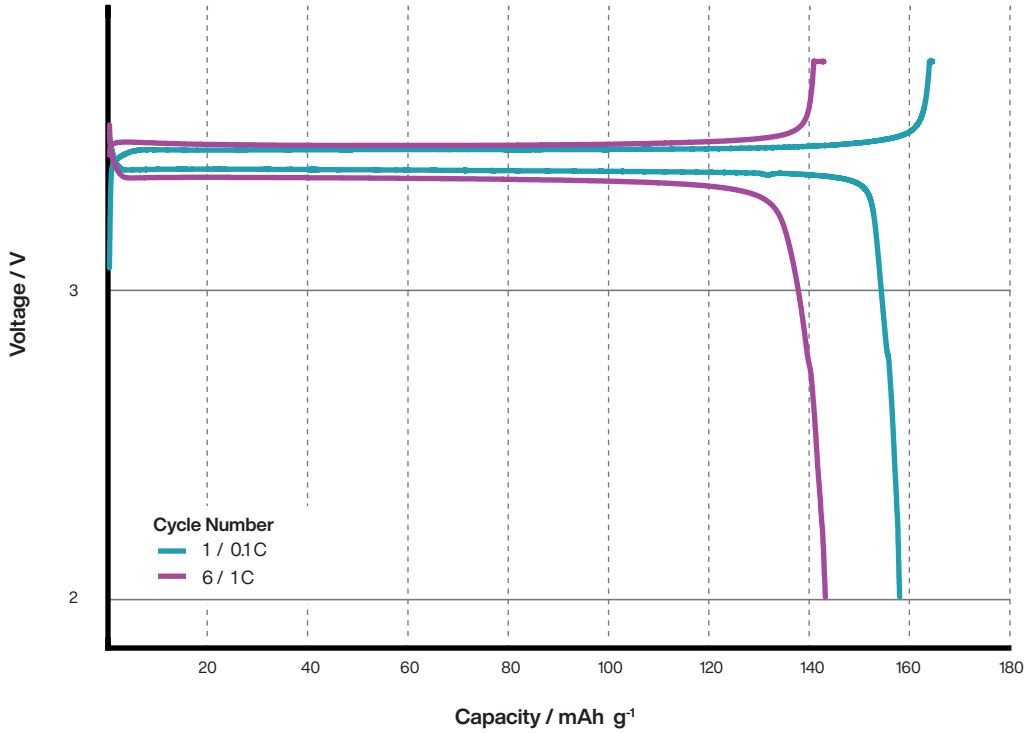
Item	Unit	Specification	Method
Fe	wt.-%	31.5 - 34.0	ICP-OES
Li		3.9 - 4.9	ICP-OES
P		17.8 - 19.8	ICP-OES
C		1.0 - 1.5	Combustion
Specific surface area	m^2/g	11.0 - 14.0	N_2 Physisorption
Tapped density	g/cm^3	0.9- 1.3	Tapped density tester
PSD, d10	µm	≥ 0.3	Laser
PSD, d50		0.8 - 1.5	Laser
PSD, d90		≤ 15.0	Laser
PSD, d99		≤ 25.0	Laser
Power density @ 3T	g/cm^3	≥ 2.42	-
Power resistivity @ 3T	Ω cm	≤ 20.0	-
Cu*	ppm	≤ 30.0	ICP-OES
Mn + Cr* + Ni + Mg + Ca + Zn		≤ 1070	ICP-OES
Na + K*		≤ 500	ICP-OES
S		≤ 250	Combustion
Moisture	ppm	≤ 1000	Coulometric, 200 °C
pH value	-	9.0 - 10.0	5 g in 100 ml water

ELECTROCHEMICAL TESTS

Item	Unit	Specification	Method
Specific capacity 0.1 C*	mAh/g	≥ 156	Coin cells
Coulomb efficiency 1st cycle	%	≥ 95.0	Coin cells

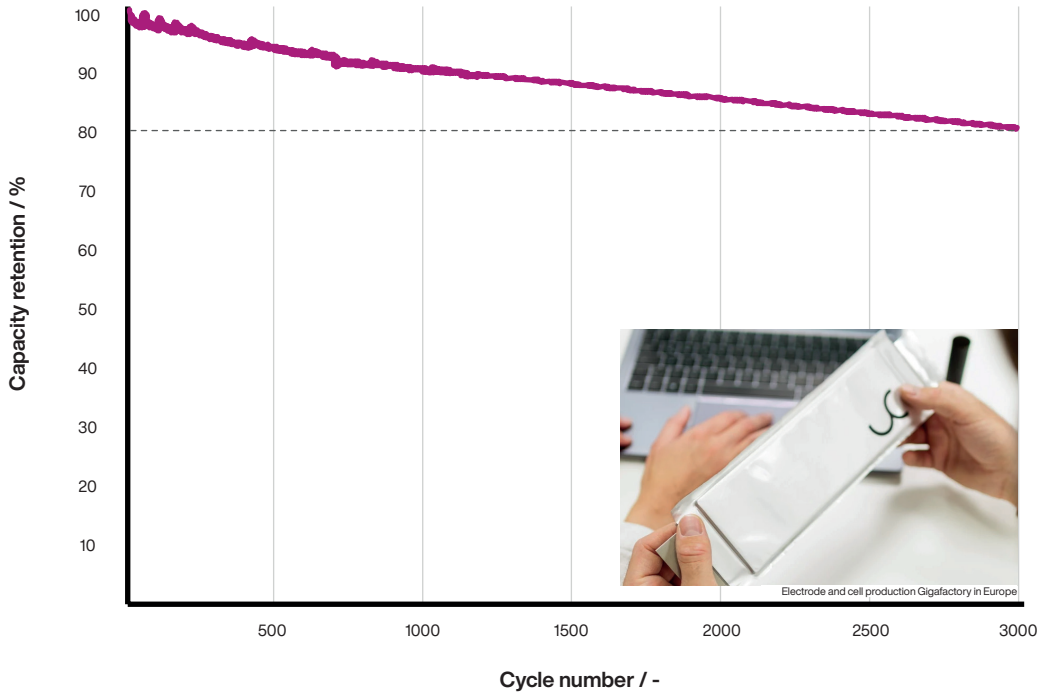
*Half cells, 25 °C, 8 mg/cm^2, $LiPF_6$ EC/DMC/DEC, 1st cycle discharge 2.5 - 3.7 V

ELECTROCHEMICAL CHARACTERIZATION (COIN CELLS)



C/10 and 1C discharge voltage profiles and specific capacity for an IBUvolt® LFP200 half cell, 14 mg/cm^2 loading, 2,5 g/cm^3 electrode density with 96% CAM.

CYCLE LIFE (MULTI-LAYER POUCH CELL)



1C/1C cycle life test of IBUvolt® LFP200 in LFP/Graphite multi-layer pouch cells, 5.2 Ah, 219 g/m^2, 2.3 g/cm^3; electrodes and cells manufactured by UniverCell Holding GmbH.

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