



Lithium-ion
Rechargeable
Batteries

Technical Data Sheet

PD2048

www.powercellkorea.com

June 2005
Korea PowerCell Inc.

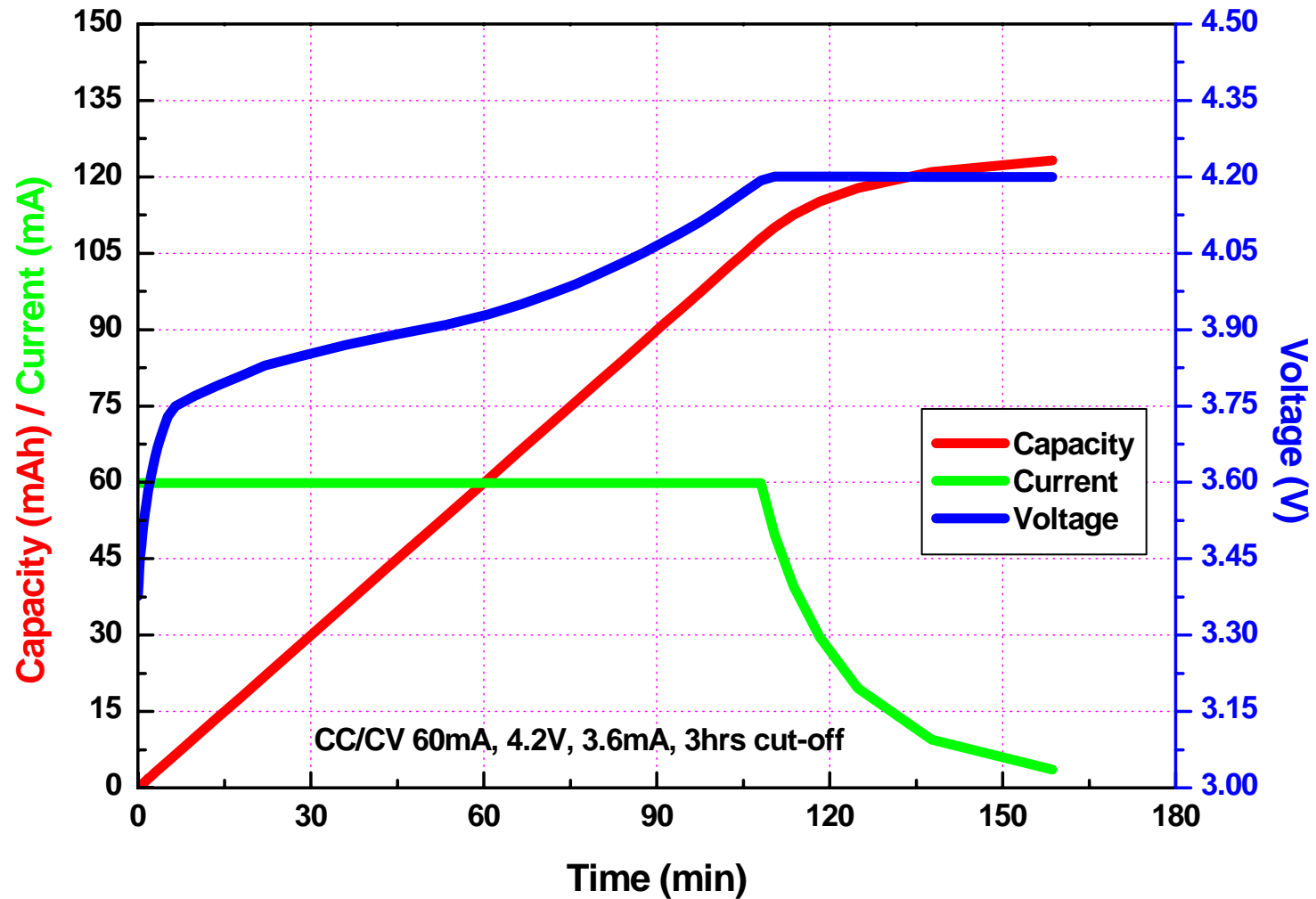
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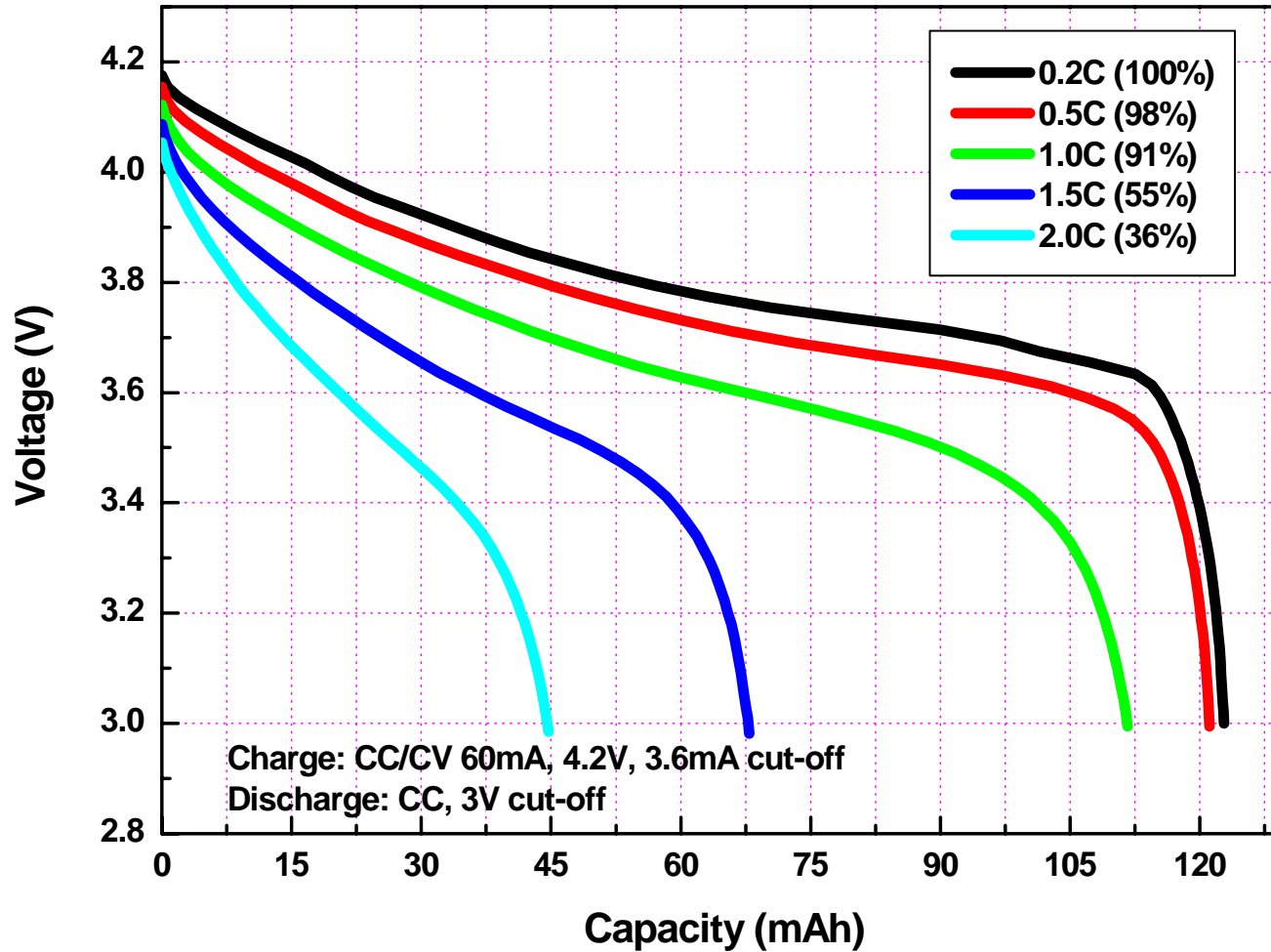
1. Specification

Model		PD2048
Nominal Capacity		120mAh (0.2C, 3.0V Cut-off)
Nominal Voltage		3.7 V
Dimension	Thickness	4.9 ± 0.2 mm (center)
	Diameter	20.0 ± 0.1 mm
Charge Method		CC-CV
Charge Voltage		4.2 V
Charge Current		* Standard 60 mA (End - Current : 3mA)
Discharge Current		* Standard 60 mA, Max. 240mA
Discharge end voltage		3.0 V
Discharge Temperature		- 20°C ~ + 60°C
Internal Impedance		Max. 700 mohm
Weight		approx 4.2g

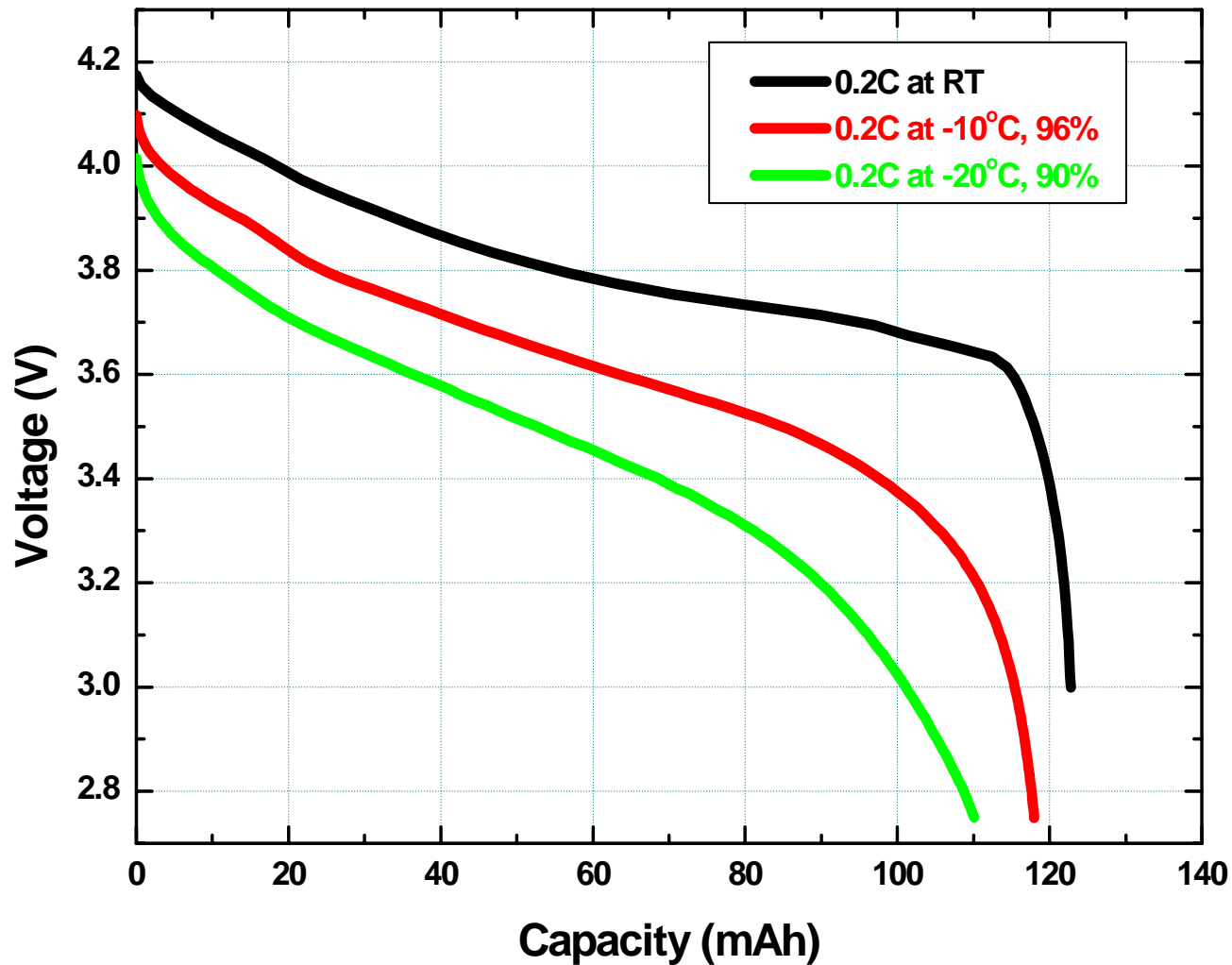
2.1. Charge Characteristics – 0.5C at 25



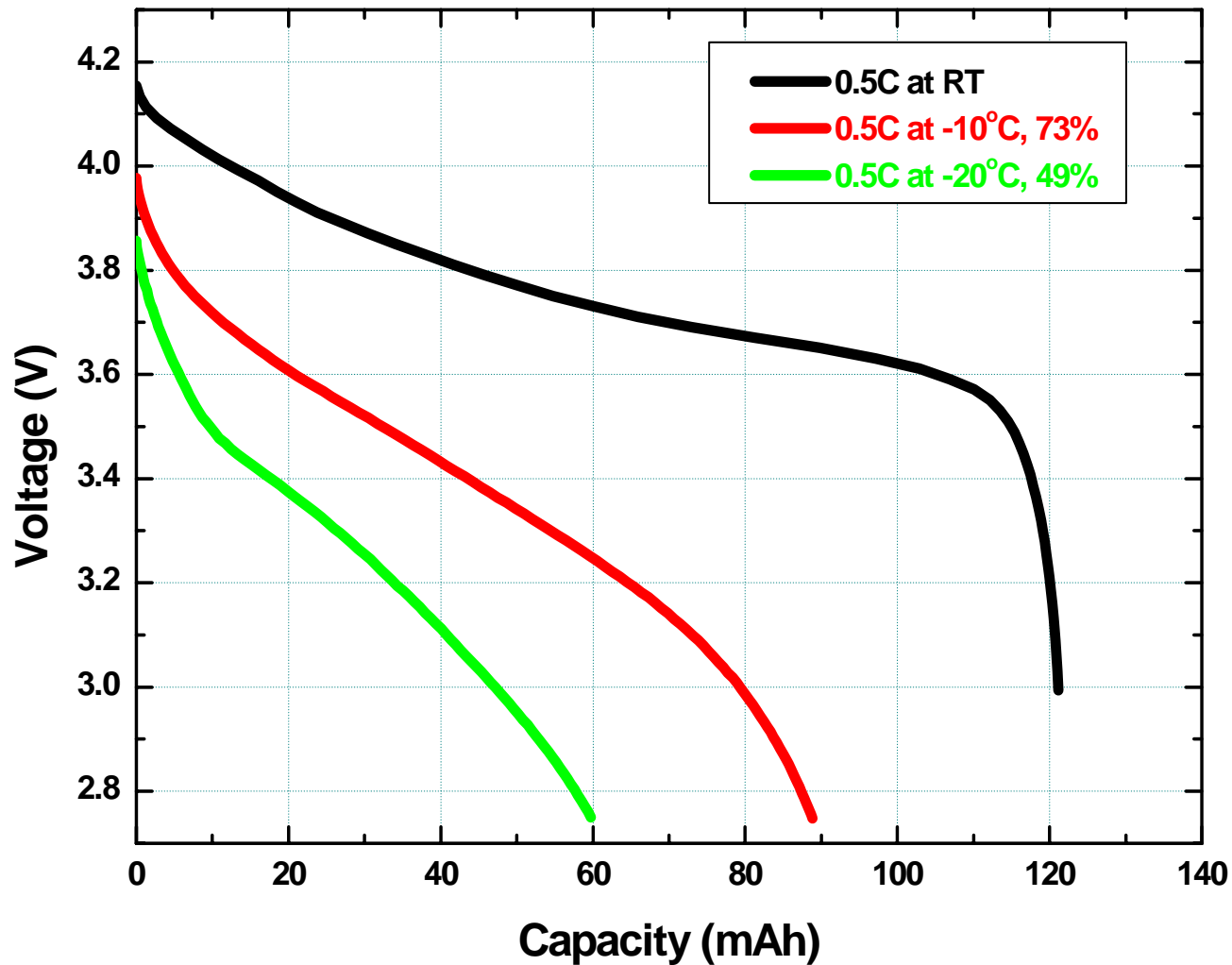
2.2. Discharge Characteristics at 25



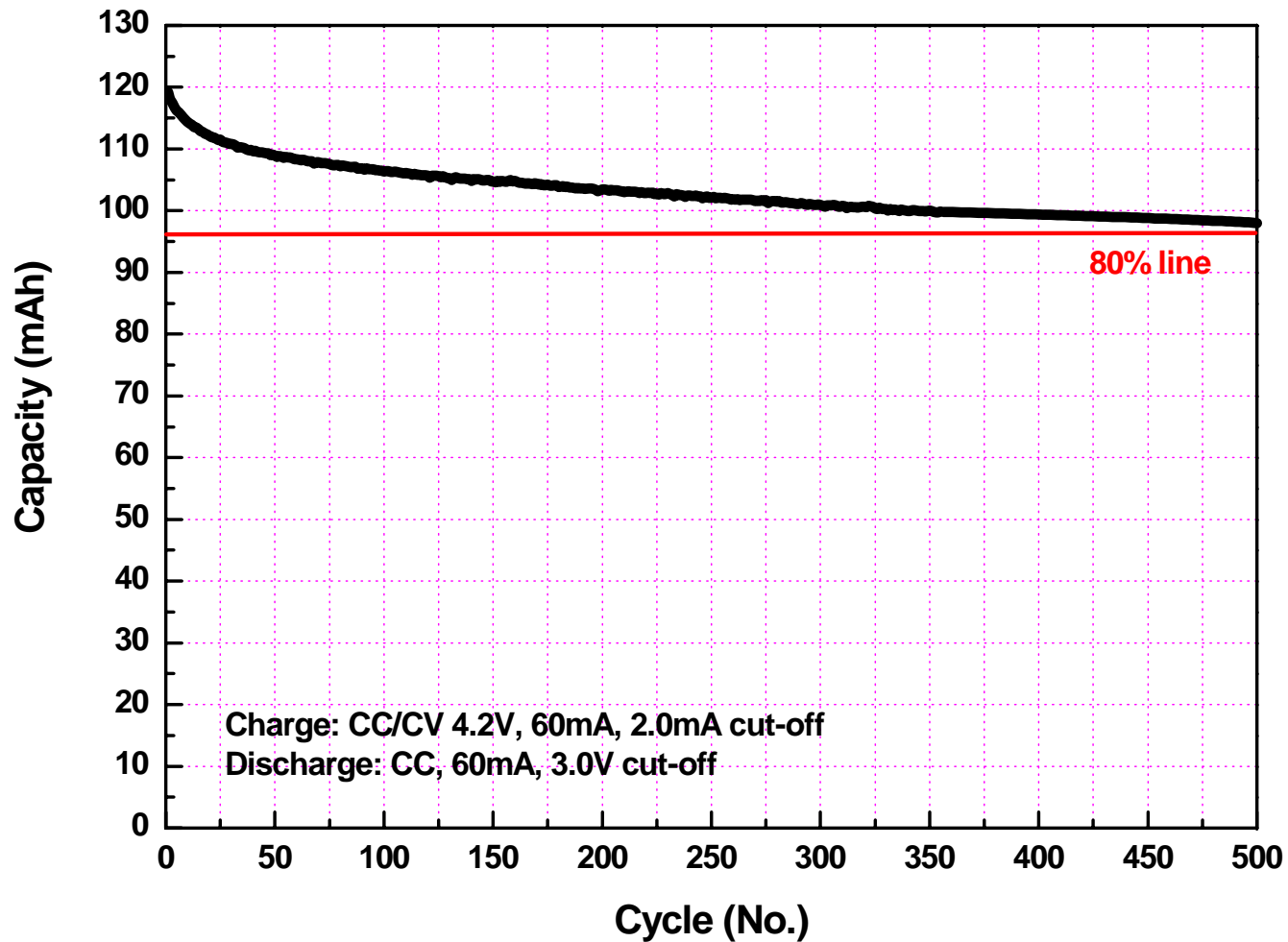
2.3. 0.2C Discharge at low temperature



2.4. 0.5C Discharge at low temperature



2.5. Cycle life – 0.5C charge/ 0.5C discharge



3.1. High temperature storage Test (90 ° C, 4hr)

** Average of 5 samples.*

	Before storage	After storage	Δ	Stdev.
Weight, g	4.1306	4.1304	0.01%	0.000
Impedance, ohm (at 1kHz)	257	360	40%	0.068
Thickness, mm (at 90°C)	4.996	5.069	1.47%	0.001
Thickness, mm (at RT)	4.996	5.049	1.07%	0.001
Residual capacity, mAh	115	103	90%	0.49
Recovery capacity, mAh	115	108	94%	0.70

2. Humidity test (60 °C, 90% RH, 1week)

** Average of 5 samples.*

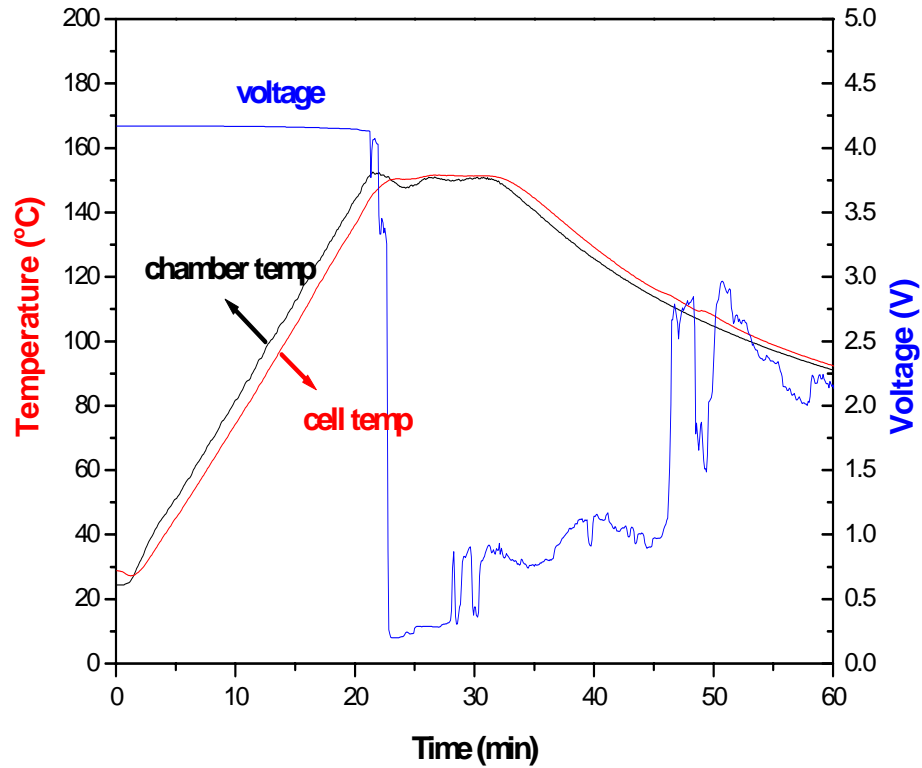
	Before storage	After storage	Δ	Stdev.
Weight, g	4.1155	4.1135	0.05%	0.000
Impedance, ohm (at 1kHz)	245	378	54%	0.014
Thickness, mm (at RT)	4.980	5.003	0.47%	0.000
Residual capacity, mAh	116	97	84%	0.770
Recovery capacity, mAh	116	106	91%	0.665

3. Safety test

Test	comment
Hot box test (150oC, 10min)	NF, NE, NV
Nail test (2.5mm nail)	NF, NE, NV
Short circuit test	NF, NE, NV
Overcharge test (3C, 250% charge)	NF, NE, NV
Overdischarge test (0.2C, 12.5hr discharge)	NF, NE, NV

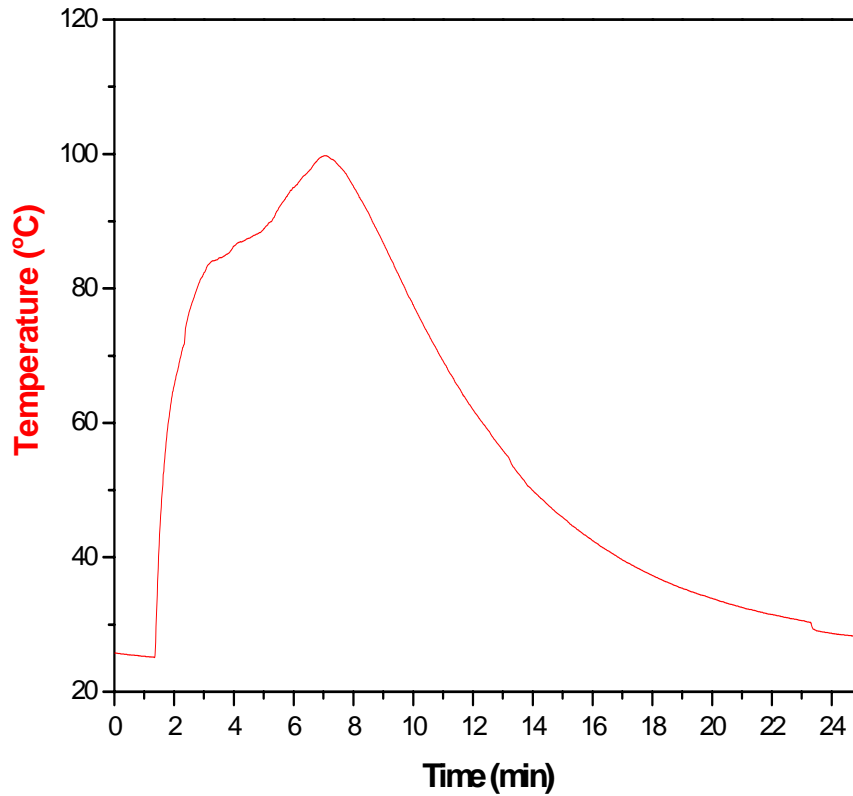
** NF= no fire, NE= no explosion, NV=no vent*

3-1. Hot-Box Test (150 °C, 10min)



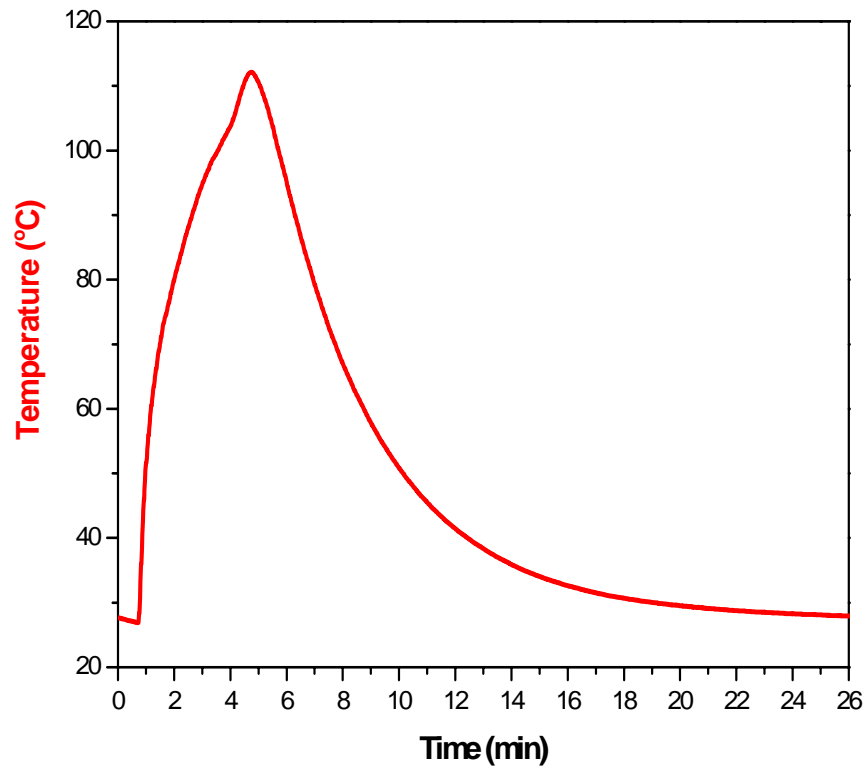
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3-2. Nail Penetration Test



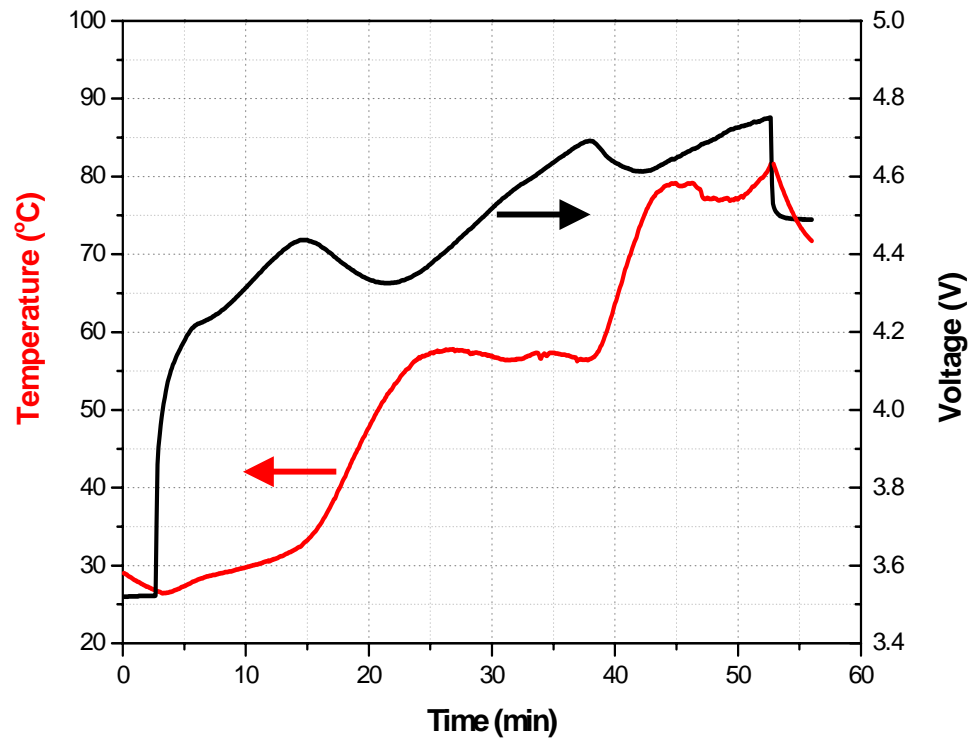
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3-3. Short circuit Test



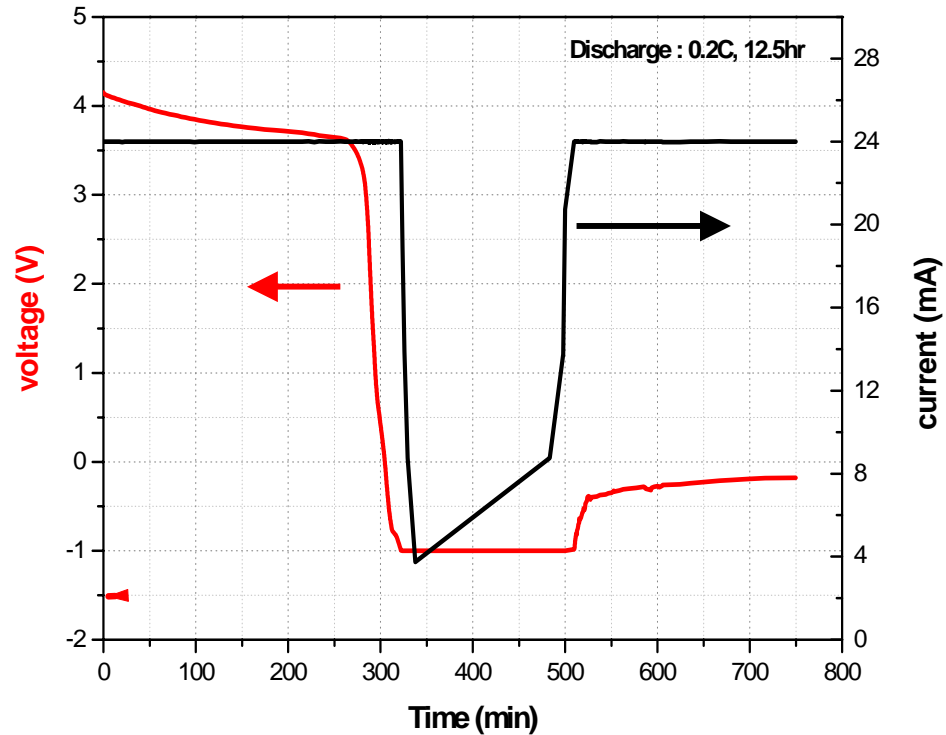
<after test>

3-4. Overcharge test (3C continuous overcharge)



<after test>

3-5. Overdischarge test (0.2C, 12.5hr discharge)



<after test>