



Lithium-ion  
Rechargeable  
Batteries

## *Technical Data Sheet PD2032-S(Tentative)*

*[www.powercellkorea.com](http://www.powercellkorea.com)*

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Korea PowerCell Inc.

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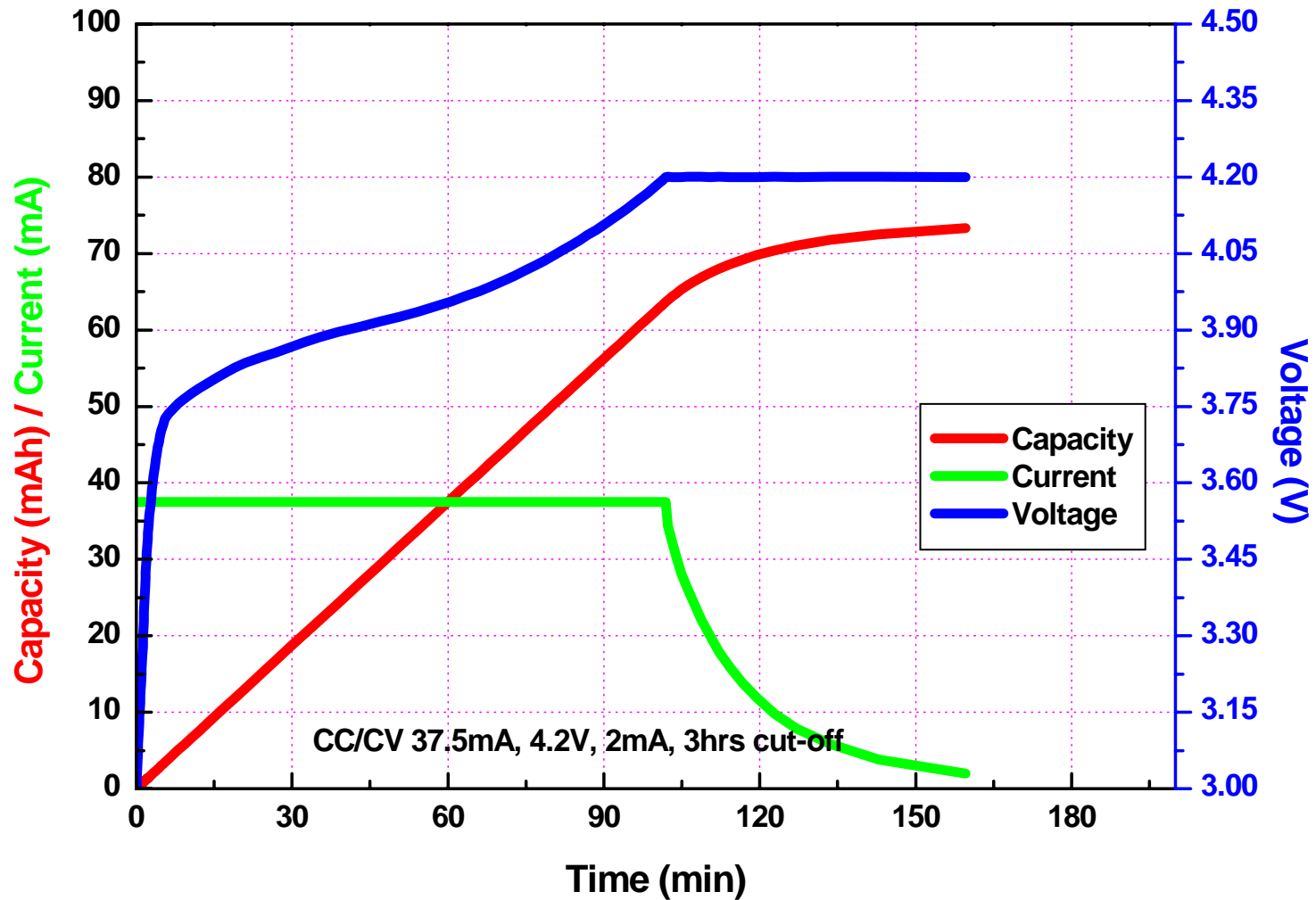
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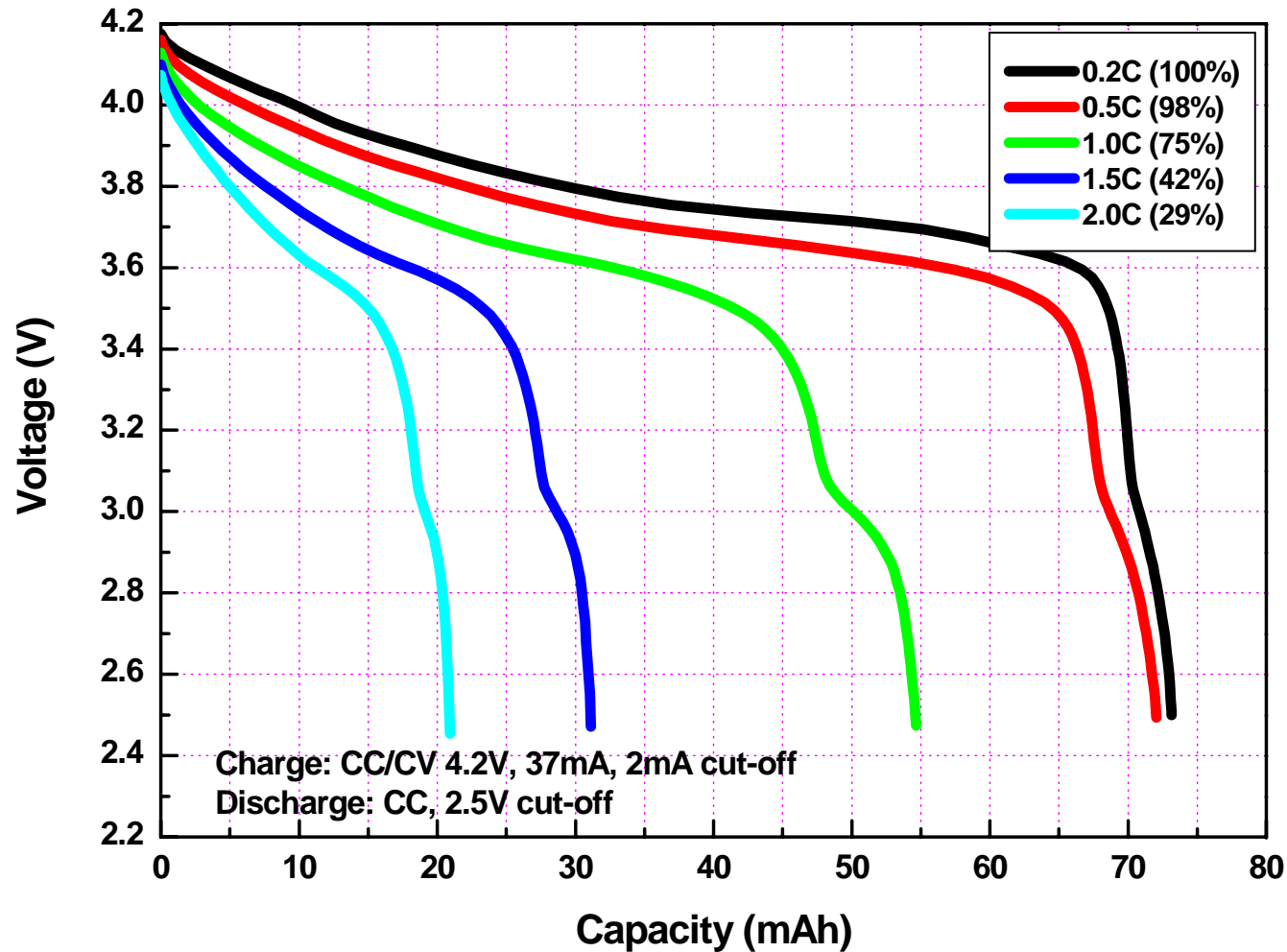
# 1.Specification

Model		PD2032-S
Nominal Capacity		72 mAh (0.2C, 2.5V Cut-off)
		70 mAh (0.2C, 3V cut-off)
Nominal Voltage		3.7 V
Dimension	Thickness	3.3 ± 0.2 mm (center)
	Diameter	20.0 ± 0.1 mm
Charge Method		CC-CV
Charge Voltage		4.2 V
Charge Current		* Standard 37 mA (End - Current : 2mA)
Discharge Current		* Standard 37 mA, Max. 150mA
Discharge end voltage		2.5 V
Discharge Temperature		- 20 deg C ~ + 60 deg C
Internal Impedance		Max. 1000 mohm
Weight		approx 3.1g

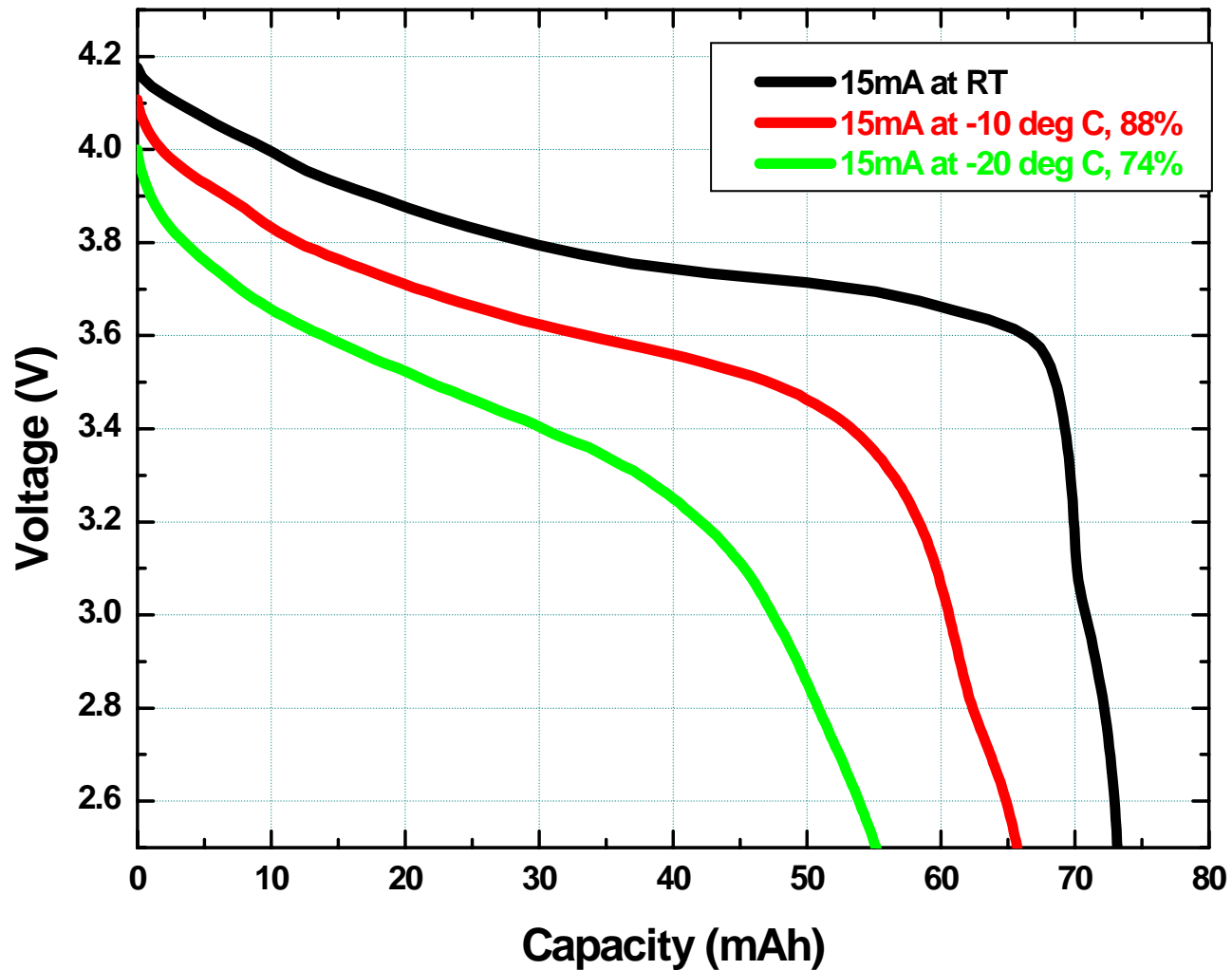
## 2.1. Charge Characteristics – 0.5C at 25 deg C



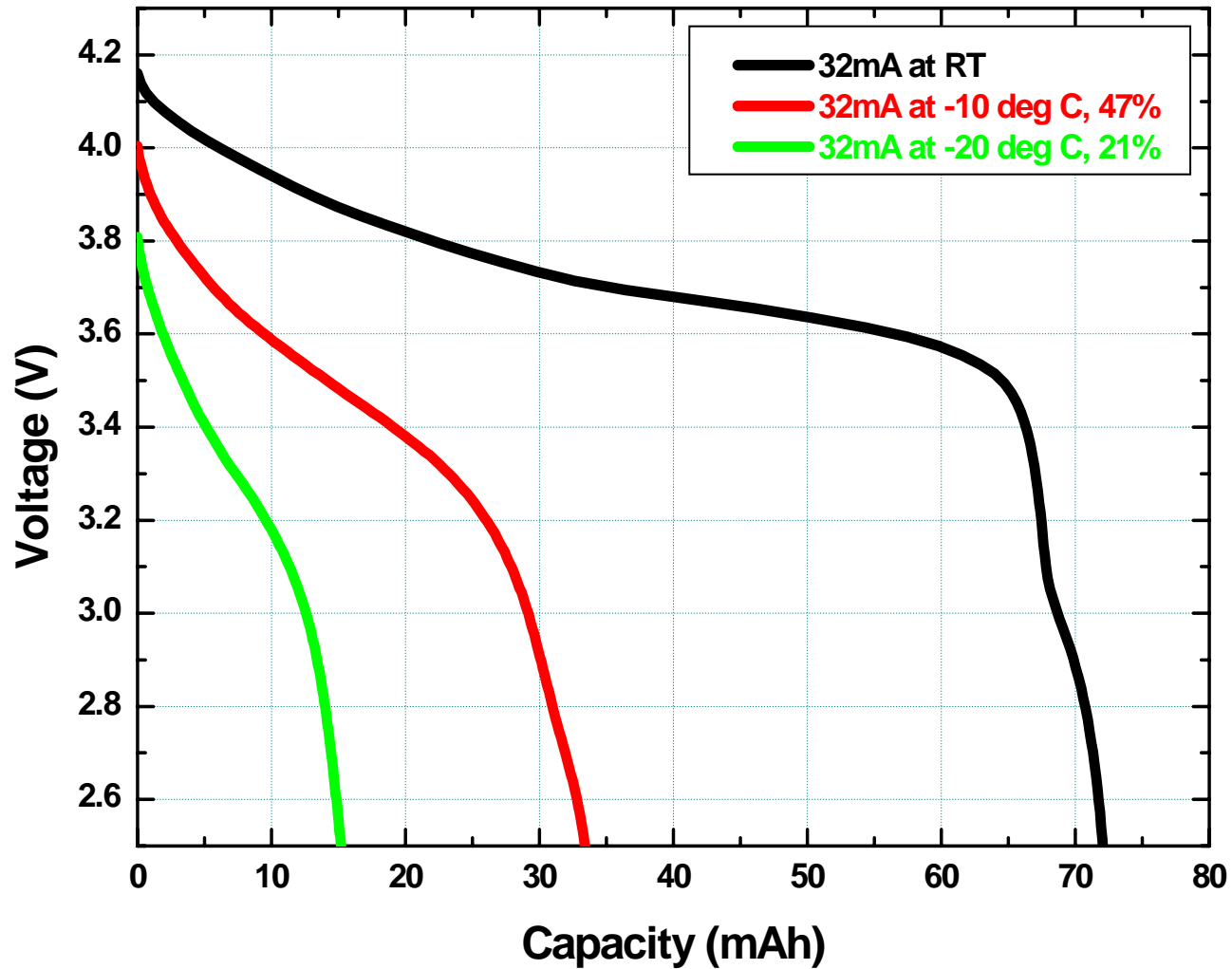
## 3.1. Discharge Characteristics at 25 deg C



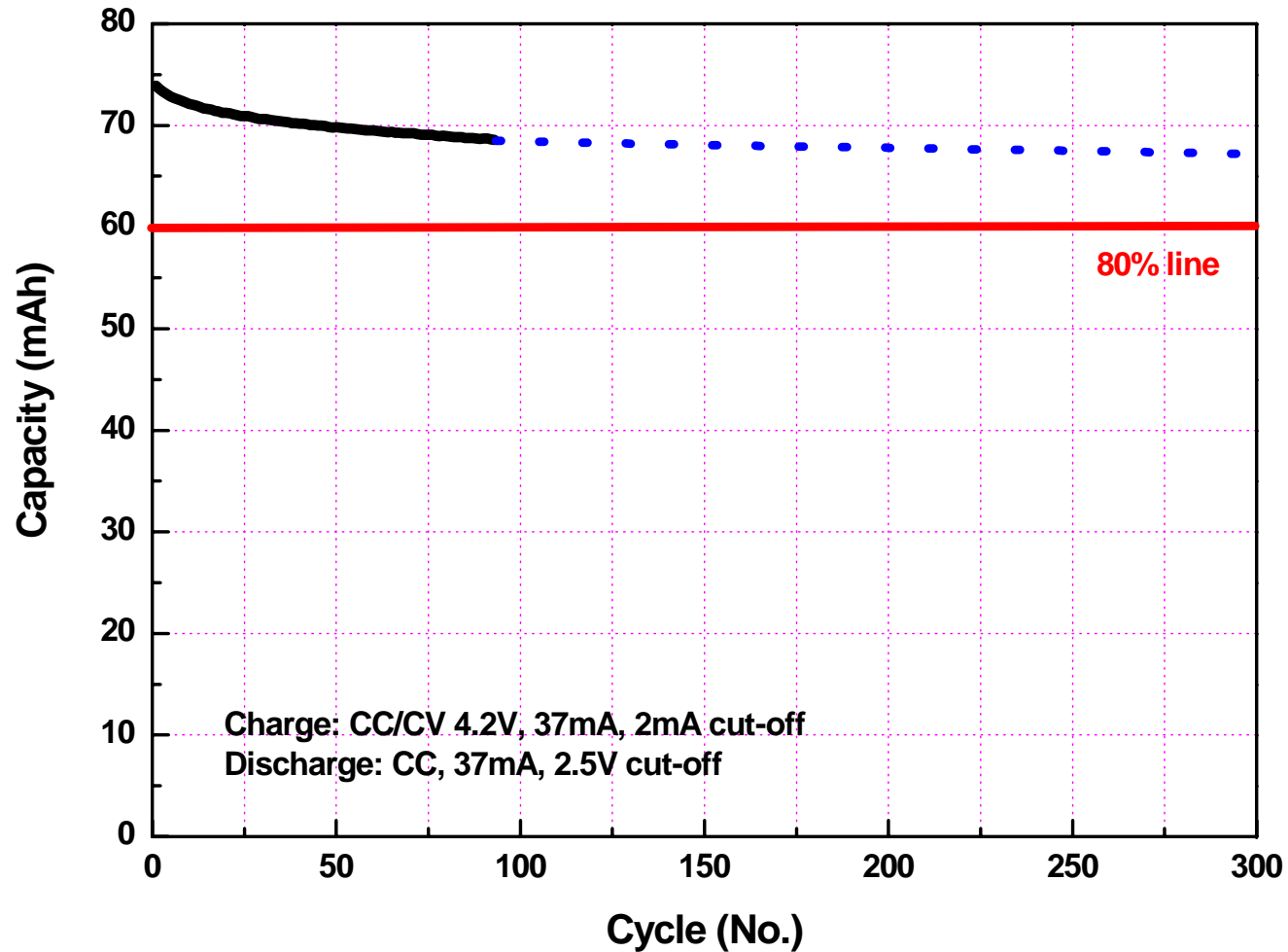
## 2.3. 0.2C Discharge at low temperature



## 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 deg C, 4hr)

*\* Average of 5 samples.*

	Before storage	After storage	$\Delta$
Voltage, V	4.159	4.125	0.035v
Impedance, mohm	262	313	19%
Thickness, mm (at 90 deg C)	3.469	3.499	0.86%
Thickness, mm (at RT)	3.469	3.489	0.58%
Residual capacity, mAh	71	62	88%
Recovery capacity, mAh	71	67	94%

## 3.2. Humidity test (60 deg C, 90% RH, 1week)

*\* Average of 4 samples.*

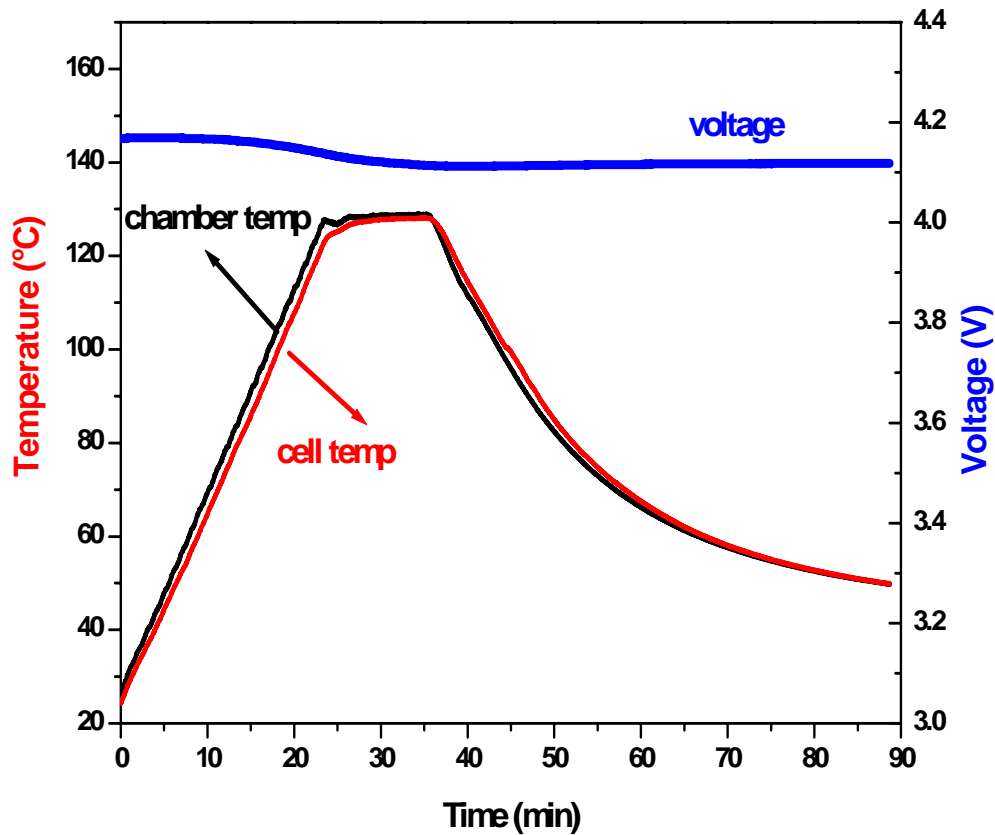
	Before storage	After storage	$\Delta$
Voltage, V	4.181	4.098	0.083v
Impedance, mohm	263	378	44%
Thickness, mm (at RT)	3.476	3.504	0.81%
Residual capacity, mAh	71	59	83%
Recovery capacity, mAh	71	65	91%

## 4. Safety test

Test	comment
Hot box test (130°C, 10min)	NF, NE, NV
Nail test (2.5mm nail)	NF, NE, NV
Short circuit test at RT	NF, NE, NV
Short circuit test at 55°C	NF, NE, NV
Overcharge test (1.5C, 250% charge)	NF, NE, NV

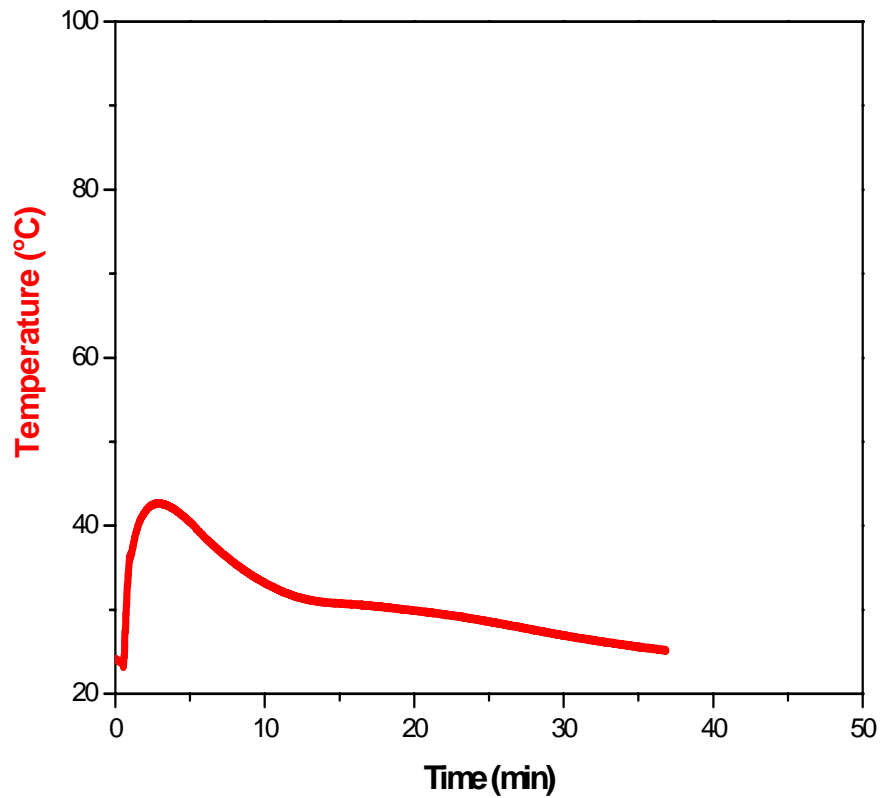
*\* NF= no fire, NE= no explosion, NV=no vent*

## 4.1. Hot-Box Test (130 °C, 10min)



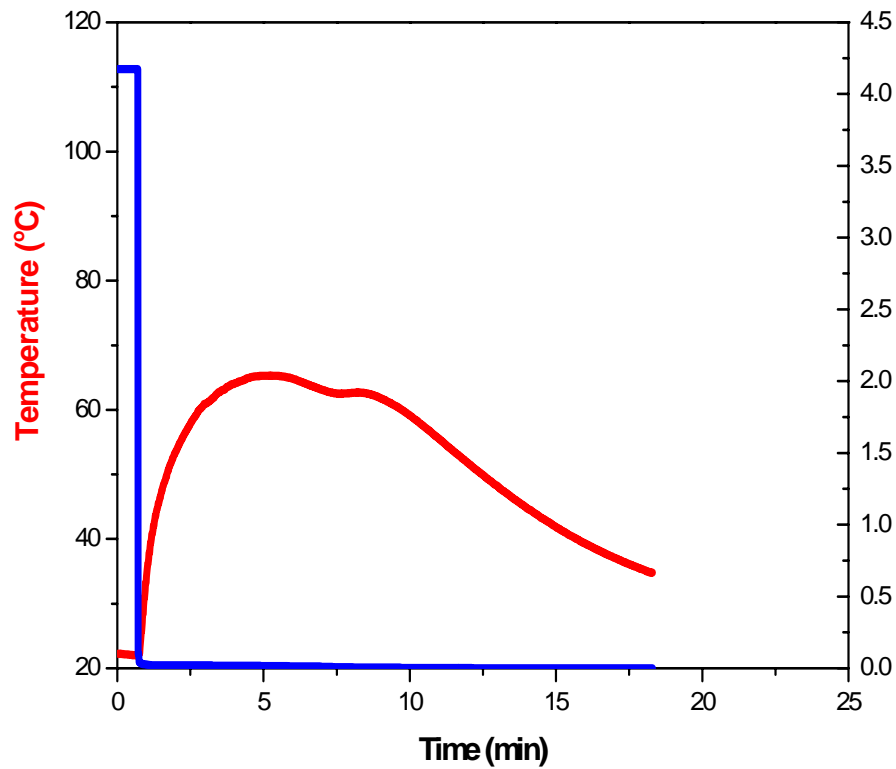
<after test>

## 4.2. Nail Penetration Test



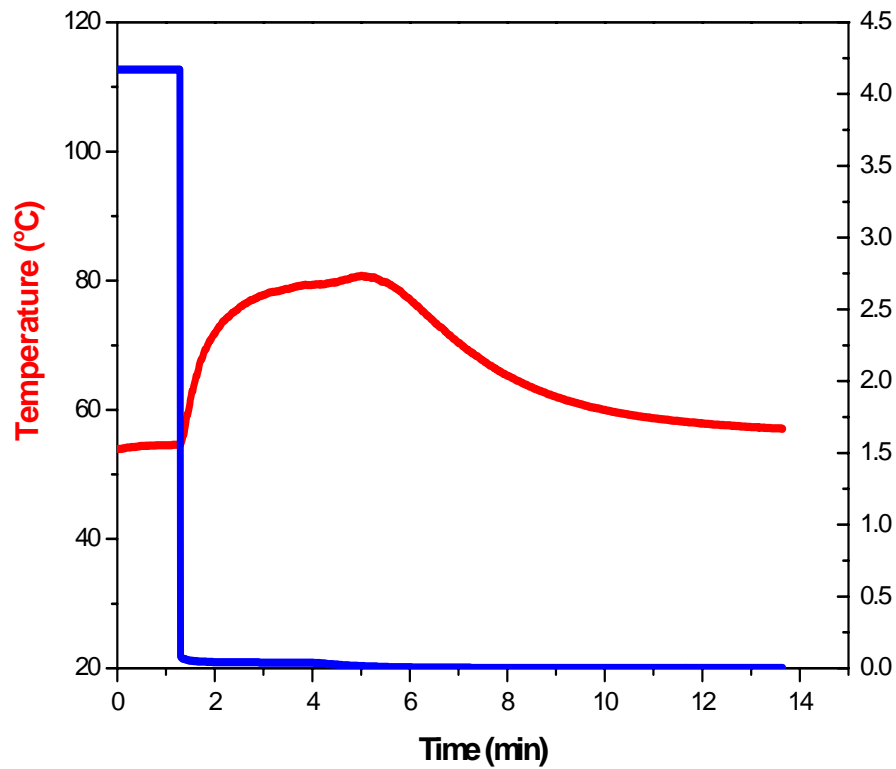
<after test>

## 4.3. Short circuit Test at RT



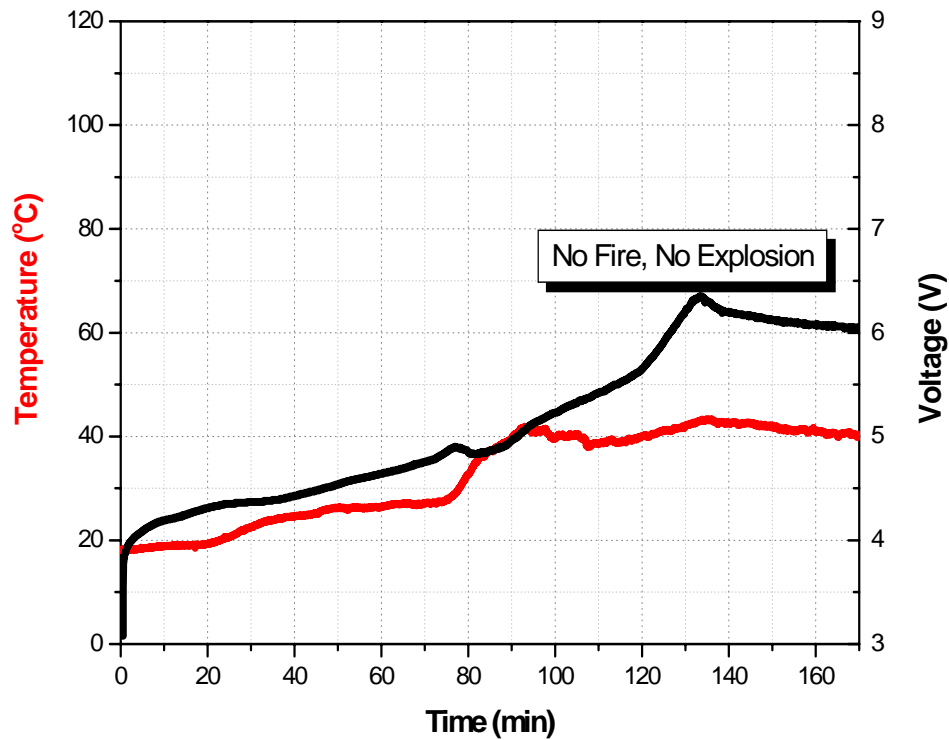
<after test>

## 4.4. Short circuit Test at 55°C



**<after test>**

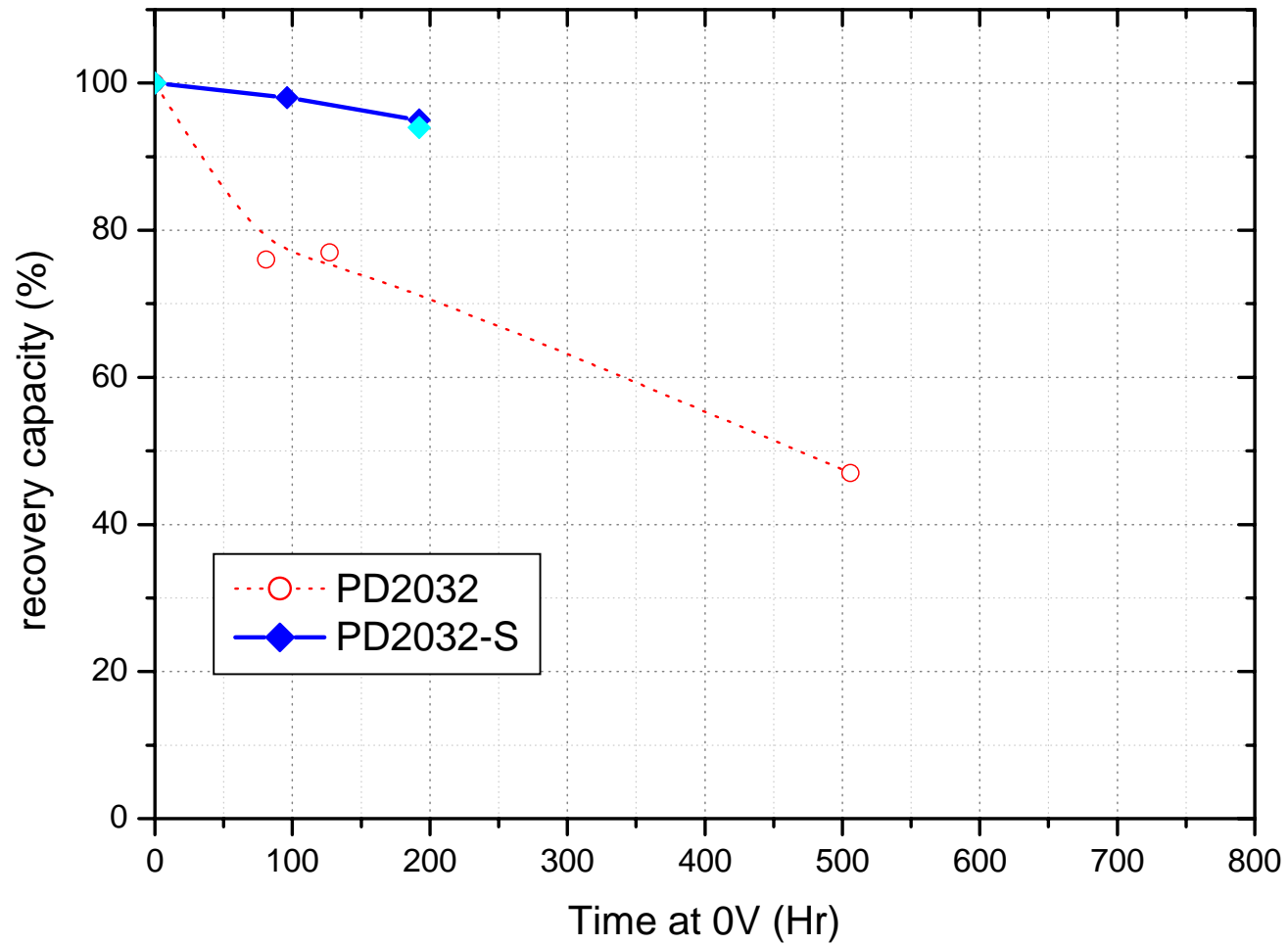
## 4.5. Overcharge test (1.5C, 250%)



<after test>



## Appendix 1. Performance after over discharge storage



## Appendix 2. Performance after over discharge cycle

