

TEST – REPORT

Recommendations on the
**TRANSPORT
OF
DANGEROUS GOODS**

Manual of
Tests and Criteria

Seventh revised edition

Part III, Sub-Section 38.3
Lithium metal and lithium ion batteries

Model name: BPLG004HBG1

Test Report Number: NR2201-R019-1

February 14, 2022



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1. General information

1.1 Purpose

The transportation of primary (non-rechargeable) lithium and rechargeable lithium ion and lithium polymer cells and batteries is regulated in the United States in accordance with Part 49 of the Code of Federal Regulations, (49 CFR Sections 100-185) of the US Hazardous Materials Regulations (HMR).

The international transportation of lithium cells and batteries is regulated by the International Civil Aviation Organization (ICAO) Technical Instructions and corresponding International Air Transport Association (IATA) Dangerous Goods Regulations, and the International Maritime Dangerous Goods (IMDG) Code.

Under United Nations transportation regulations, all primary lithium and rechargeable lithium ion and lithium polymer cells and batteries must comply with the UN T1 – T8 testing requirements prior to being shipped.


This report should not be considered or used as an endorsement or recommendation of the suitability of the articles for purchase or intended use.

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1.2 Report approvals

Tested by

February 14, 2022	Bong-Hyun, Son / Project Engineer	
Date	Name / Title	(Signature)

Approved by

February 14, 2022	Kyung-Hyun, Cha/ Technical Manager	
Date	Name / Title	(Signature)

1.3 Laboratory details

Name : NCT CO., LTD.
Location/address : 211-71, Geumgok-ro, Hwaseong-si, Gyeonggi-do, 18511,
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This laboratory is registered KOLAS, Republic of Korea quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the “General requirements for the Competence of testing and calibration laboratories”. KOLAS Testing No. KT689

This test result only responds to the tested sample. It is not allowed to copy this report even partly without the allowance of the test laboratory. This report must not be used by the applicant to claim product endorsement by KOLAS or any agency of the Korea Government.

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1.4 Application details

1.4.1 Details of applicant

Name : ELENTEC Co., Ltd
Address..... : 64-3, Dongtangiheung-ro, Hwaseong-si, Gyeonggi-do,
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Telephone : -
Facsimile : -

1.4.2 Manufacturer

Name : ELENTEC Co., Ltd
Address..... : 64-3, Dongtangiheung-ro, Hwaseong-si, Gyeonggi-do,
Republic of Korea
Telephone : -
Facsimile..... : -

1.4.3 Dates of application

Date of receipt of test item.....: December 20, 2021
Date(s) of performance of tests .: December 20, 2021 to January 17, 2022

2. Technical information

2.1 Summary of test results

No.	Test items	Criteria	Results
1	Test T.1: Altitude simulation	<ul style="list-style-type: none"> - There is no leakage, no venting, no disassembly, no rupture and no fire - The open circuit voltage of each test cell or battery after testing is not less than 90 % of its voltage immediately prior to this procedure 	Pass
2	Test T.2: Thermal test	<ul style="list-style-type: none"> - There is no leakage, no venting, no disassembly, no rupture and no fire - The open circuit voltage of each test cell or battery after testing is not less than 90 % of its voltage immediately prior to this procedure 	Pass
3	Test T.3: Vibration	<ul style="list-style-type: none"> - There is no leakage, no venting, no disassembly, no rupture and no fire during the test and after the test - The open circuit voltage of each test cell or battery directly after testing in its third perpendicular mounting position is not less than 90 % of its voltage immediately prior to this procedure 	Pass
4	Test T.4: Shock	<ul style="list-style-type: none"> - There is no leakage, no venting, no disassembly, no rupture and no fire - The open circuit voltage of each test cell or battery after testing is not less than 90 % of its voltage immediately prior to this procedure 	Pass
5	Test T.5: External short circuit	<ul style="list-style-type: none"> - Their external temperature does not exceed 170 °C and there is no disassembly, no rupture and no fire during the test and within six hours after the test 	Pass

※ The uncertainty was not considered according to the customer's request standard, and the conformance of the standard is judged according to the acceptance criteria of the request standard.