

# DURACELL LITHIUM COIN CELLS

## TEST SUMMARY

IN ACCORDANCE WITH SUB-SECTION 38.3 OF THE MANUAL OF TESTS AND CRITERIA

### CELL/BATTERY UN38.3 TEST SUMMARY

**Revision Date:** August 27, 2020

**Revision Number:** Coin\_TS-2020-REV4

**Product Manufacturer:** DURACELL US Operations Inc., 14 Research Drive, Bethel CT. 06801 USA

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DURACELL's product lithium metal cells and batteries have been successfully tested and comply with the UN Model Regulations, Manual of Tests and Criteria, Part III, subsection 38.3.

| UN38.3 PERFORMED TESTS |    |                        | RESULTS |
|------------------------|----|------------------------|---------|
| 38.3.4.1               | T1 | Altitude Simulation    | PASS    |
| 38.3.4.2               | T2 | Thermal Test           | PASS    |
| 38.3.4.3               | T3 | Vibration              | PASS    |
| 38.3.4.4               | T4 | Shock                  | PASS    |
| 38.3.4.5               | T5 | External Short Circuit | PASS    |
| 38.3.4.6               | T6 | Impact/Crush           | PASS    |
| 38.3.4.7               | T7 | Overcharge             | N/A     |
| 38.3.4.8               | T8 | Forced Discharge       | PASS    |

### PRODUCT TEST INFORMATION

The cells and batteries listed below were tested to UN Manual Tests and Criteria Revision 3 Amendment 1 or subsequent revisions or amendments.

| Model Number | Physical Description                   | Battery Mass | Lithium grams | Test Report Number | Test Report Date |
|--------------|----------------------------------------|--------------|---------------|--------------------|------------------|
| 1216         | Li Metal coin cell, CR1216, DL/CR1216  | 0.7g         | 0.008g        | LJK20180901U15     | 8/15/19          |
| 1220         | Li Metal coin cell, CR1220, DL1220     | 1.0g         | 0.01g         | No. CP0005-8       | 7/30/2008        |
| 1616         | Li Metal coin cell, CR1616, DL1616     | 1.2g         | 0.02g         | No. CP0002-8       | 7/23/2008        |
| 1616         | Li Metal coin cell, CR1616, DL1616     | 1.2g         | 0.02g         | LJKL20180604U01    | 06/22/2018       |
| 1620         | Li Metal coin cell, CR1620, DL1620     | 1.3g         | 0.02g         | No. CP0010-6       | 8/5/2008         |
| 1632         | Li Metal coin cell, CR1632, DL1632     | 1.8g         | 0.04g         | No. CP0018-7       | 9/12/2018        |
| 1632         | Li Metal coin cell, CR1632, DL1632     | 2.0g         | 0.03g         | LJKJ20180901U08    | 9/25/2018        |
| 2016         | Li Metal coin cell, CR2016, DL/CRL2016 | 1.7g         | 0.025g        | 1120030132 JCC     | 04/10/2020       |

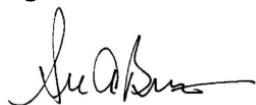
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IN ACCORDANCE WITH SUB-SECTION 38.3 OF THE MANUAL OF TESTS AND CRITERIA

|             |                                            |       |        |                 |            |
|-------------|--------------------------------------------|-------|--------|-----------------|------------|
| <b>2016</b> | Li Metal coin cell, CR2016, DL2016         | 1.7g  | 0.03g  | RZUN2019-2931   | 10/18/2019 |
| <b>2016</b> | Li Metal coin cell, CR2016, DL2016         | 2.0g  | 0.03g  | LJKJ20180901U09 | 9/25/2018  |
| <b>2016</b> | Li Metal coin cell, CR2016, DL/CR2016      | 1.7g  | 0.025g | 1120050251 NAN  | 6/22/2020  |
| <b>2025</b> | Li Metal coin cell, CR2025, DL/CR2025      | 2.4g  | 0.048g | 1120030131 JCC  | 04/09/2020 |
| <b>2025</b> | Li Metal coin cell, CR2025, DL2025         | 2.4g  | 0.05g  | RZUN2019-2933   | 10/18/2019 |
| <b>2025</b> | Li Metal coin cell, CR2025, DL2025         | 2.6g  | 0.04g  | LJKJ20180112U02 | 02/1/2018  |
| <b>2025</b> | Li Metal coin cell, CR2025, DL/CR2025      | 2.4g  | 0.048g | 1120050252 NAN  | 6/23/2020  |
| <b>2032</b> | Li Metal coin cell, CR2032, DL/CR2032      | 2.92g | 0.07g  | 1120020118 JCC  | 03/26/2020 |
| <b>2032</b> | Li Metal coin cell, CR2032, DL2032         | 2.9g  | 0.07g  | RZUN2016-3925   | 12/27/2016 |
| <b>2032</b> | Li Metal coin cell, CR2032, DL2032, 2032PH | 3.2g  | 0.07g  | LJKJ20180112U01 | 2/1/2018   |
| <b>2032</b> | Li Metal coin cell, CR2032, DL2032         | 2.92g | 0.07g  | 1120050250 NAN  | 6/22/2020  |
| <b>2430</b> | Li Metal coin cell, CR2430, DL2430         | 4.5g  | 0.08g  | RZUN2019-2934   | 12/29/2016 |
| <b>2430</b> | Li Metal coin cell, CR2430, DL2430         | 4.5g  | 0.09g  | LJKJ20180901U05 | 9/25/2018  |
| <b>2450</b> | Li Metal coin cell, CR2450, DL2450         | 6.3g  | 0.18g  | No. CP0024-7    | 1/21/2009  |
| <b>2450</b> | Li Metal coin cell, CR2450, DL2450         | 6.3g  | 0.17g  | LJKJ20180405Z01 | 4/25/2018  |

Signature with name and Job Title of signatory:



Stephen Benoit

**DURACELL**

*Manager of Product Safety and Regulatory*

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