

# UN 38.3.5 compliant test summaries for INTEGRA Lithium Batteries

## Art No 159603, 161700

**INTEGRA Biosciences** is committed to provide reliable, high quality products which are safe and compliant with relevant regulations worldwide. This document summarizes lithium battery tests as required by IATA's updated 2019 Lithium Battery Guidance Document, which states: Effective 1 January 2020, manufacturers and subsequent distributors of cells or batteries and equipment powered by cells and batteries manufactured after 30 June 2003 must make available the test summary as specified in the UN Manual of Tests and Criteria, Revision and amend. 1, Part III, sub-section 38.3, paragraph 38.3.5.

Source: <https://www.iata.org/whatwedo/cargo/dgr/Documents/lithium-battery-shipping-guidelines.pdf>

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## 2 Lithium battery INTEGRA Art No 159603

<b>Type</b>	Rechargeable Li-Ion Polymer Battery
<b>Model number</b>	KPL652339-2S
<b>Rated Capacity</b>	550 mAh
<b>Nominal Voltage</b>	7.4 V
<b>Mass</b>	27.2 ± 0.3 g
<b>Watt hour rating</b>	4.1 Wh
<b>Manufacturer</b>	SHENZHEN POWEROAK NEWENER CO. LTD New maxtar Industrial Park Longsheng 5 Road Dayawan District 516085 Hoizhou CHINA Tel: +86 755 23705980 E-mail: <a href="mailto:info@kayomaxtar.com">info@kayomaxtar.com</a> Web: <a href="http://kayomaxtar.com/">http://kayomaxtar.com/</a>
<b>Test Lab</b>	Pony Testing International Group Bldg1 Court 66 Jindai Road Zhongguancun Environmental Protection Park Haidian District Beijing China Tel: +86 10 83055000 Email: <a href="mailto:pony@ponytest.com">pony@ponytest.com</a> Web: <a href="http://www.ponytest.com">www.ponytest.com</a>
<b>Report ID</b>	H07193026721D-1
<b>Date</b>	August 5, 2013
<b>Standard</b>	UN38.3
<b>Physical description</b>	Compatible with IEC 6F22, ANSI/NEDA 1604x

**Table 1a:** Summary test information for INTEGRA Art No 159603

Item	Sample number	Standard	Conclusion
Altitude simulation	N1-N4 C1-C4	UN38.3	PASS
Thermal test	N1-N4 C1-C4	UN38.3	PASS
Vibration	N1-N4 C1-C4	UN38.3	PASS
Shock	N1-N4 C1-C4	UN38.3	PASS
External short circuit	N1-N4 C1-C4	UN38.3	PASS
Crush	N9-N13	UN38.3	PASS
Overcharge	N5-N8 C5-C8	UN38.3	PASS
Forced discharge	N14-N23 C9-C18	UN38.3	PASS

### Notes

*N1-N8 Batteries at first cycle, in fully charged states*

*N9-N13: Rechargeable component cells, at first cycle at 50 % of the design rated capacity*

*N14-N23: Rechargeable component cells at first cycle in fully discharged states*

*C1-C8: Batteries, after 50 cycles ending in fully charged states*

*C9-C18: Rechargeable component cells after 50 cycles ending in fully discharged states*

**Table 1b:** Summary test items and conclusions for INTEGRA Art No 159603

### 3 Lithium battery INTEGRA Art No 161700

<b>Type</b>	Rechargeable Li-Ion Battery
<b>Model number</b>	ICR14650
<b>Rated Capacity</b>	1050 mAh
<b>Nominal Voltage</b>	3.7 V
<b>Mass</b>	26.4 ± 0.2 g
<b>Watt hour rating</b>	3.9 Wh
<b>Manufacturer</b>	SHENZHEN POWEROAK NEWENER CO. LTD New maxtar Industrial Park Longsheng 5 Road Dayawan District 516085 Hoizhou CHINA Tel: +86 755 23705980 E-mail: <a href="mailto:info@kayomaxtar.com">info@kayomaxtar.com</a> Web: <a href="http://kayomaxtar.com/">http://kayomaxtar.com/</a>
<b>Test Lab</b>	Pony Testing International Group Bldg1 Court 66 Jindai Road Zhongguancun Environmental Protection Park Haidian District Beijing China Tel: +86 10 83055000 Email: <a href="mailto:pony@ponytest.com">pony@ponytest.com</a> Web: <a href="http://www.ponytest.com">www.ponytest.com</a>
<b>Report ID</b>	H12103019721D-1
<b>Date</b>	December 25, 2013
<b>Standard</b>	UN38.3
<b>Physical description</b>	Cylindrical cell 14500 format

**Table 2a:** Summary test information for INTEGRA Art No 161700

Item	Sample number	Standard	Conclusion
Altitude simulation	N1-N10	UN38.3	PASS
Thermal test	N1-N10	UN38.3	PASS
Vibration	N1-N10	UN38.3	PASS
Shock	N1-N10	UN38.3	PASS
External short circuit	N1-N10	UN38.3	PASS
Crush	N11-15	UN38.3	PASS
Overcharge	-	UN38.3	Not Applicable
Forced discharge	N16-N25 C1-C10	UN38.3	PASS

**Notes:**

N1-N10: Cells at first cycle in fully charged states

N11-N15: Cells at first cycle at 50 % of the design rated capacity



N16-N25: Cells at first cycle in fully discharged state

C1-C10: Cells after 50 cycles ending in fully discharged states

**Table 2b:** Summary test items and conclusions for INTEGRA Art No 161700

## 4 Signature

Zizers, 17 March 2020

	
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