



TEST SUMMARY

LITHIUM CELLS AND BATTERIES



Lithium cell or battery test summary in accordance with sub-section 38.3 of Manual of Tests and Criteria

Manufacturer (if applicable): Guangdong Liwang New Energy Co.,Ltd.
 Address: Shima Village,Tangxia Town,Doungguan City,Guangdong Province,China
 Phone number: 0086-769-86201111-8062
 Email: qal@liwangbattery.com
 Website: N/A

Test laboratory: Shenzhen ZRLK Testing Technology Co.,Ltd.
 Adresse: No.64, 20th Building of Guanwai, Liuxian Dong, Xili, Xili Street, Nanshan District, Shenzhen City
 Phone number: +86-755-3319599
 Email: admin@zrklab.com
 Website: www.zrklab.com

Test report identification number: ZKS181200457
 Date of test report: 2019-01-10

Lithium ion cell (battery) Lithium metal cell (battery)
 Masse: _____ Wh _____ g lithium content
 Description of cell/battery: _____

 Product model number: _____

Test	Cells		Batteries		Single cells		Component cells	
	pass	fail	pass	fail	pass	fail	pass	fail
T.1 Altitude simulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
T.2 Thermal test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
T.3 Vibration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
T.4 Shock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
T.5 External short circuit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
T.6 Impact/Crush	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
T.7 Overcharge			<input type="checkbox"/>		<input type="checkbox"/>	*		
T.8 Forced discharge	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>

* lithium ion only / with overcharge protection

** not transported separately from the battery, otherwise same test as cells

Met requirements for assembled battery testing? yes no
 (if applicable)

The requirements of the 7th revised edition "Manual of Tests and Criteria, Part III, Subsection 38.3" for each cell / battery have been met and the cells/batteries fully meet the requirements International Dangerous Goods Regulations ADR/RID/ADN/IMDG-Code/IATA-DGR!

Date: 2020/3/10

Place: _____

 (Signature/title)

