

LITHIUM CELL TEST SUMMARY AND SUPPLIER INQUIRY

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

Name/Description of cell / model n o. of Product	
	e.g. BT-X52

Manufacturer of cell

Name	Dongguan Golden CEL Battery Co.,Ltd.
Address	No.11,Yinhu Industrial park,Jiao Yi Tang Management Zone,Tangxia,DongGuan,GuangDong,P.R.China
Phone	86-0769-82195308
E-Mail	zhirongjian@cellbattery.com
Website	http://celbattery.battery.com.cn/

Manufacturer

Name	Technaxx Deutschland GmbH & Co. KG
Address	Kruppstraße 105, 60388 Frankfurt am Main
Phone	+49 [69] 90 47552 0
E-Mail	Zentrale@technaxx.de
Website	http://www.technaxx.de/

Test laboratory of cell

Name	Shenzhen TCT Testing Technology Co.,Ltd
Address	1B/F.,Building 1,Yibaoai Industrial Park ,Qiaotou ,Fuyong ,Baoan District,Shenzhen,Guangdong,China
Phone	86-0755-27673339
E-Mail	tom@tct-lab.com
Website	http://www.tct-lab.com

ID-number and date

Unique test report identification number	TCT191230B033
Date of test report	2020.01.12

DESCRIPTION OF CELL (Mark with an "X")

Lithium ion cell	X
Lithium metal cell	

Parameters

Mass in gram (g):	1.5g
Lithium ion: Indicate watt-hour rating (Wh):	0.222Wh
Lithium metal: Indicate lithium metal content in gram (g):	

Physical description of cell

Single Cell Lithium ion Battery

Model numbers

601115

TESTS AND RESULTS

<i>List of tests conducted and results</i> <i>- Mark N/A, pass or fail with an "X"</i>	<i>N/A</i>	<i>Pass</i>	<i>Fail</i>
<i>T1 - Altitude simulation</i>		x	
<i>T2 - Thermal Test</i>		x	
<i>T3 - Vibration</i>		x	
<i>T4 - Shock</i>		x	
<i>T5 - External Short Circuit</i>		x	
<i>T6 - Impact - for cylindrical cells having a diameter of at least 18 mm</i>		x	
<i>T6 - Crush - for prismatic cells, pouch cells, button cells and cylindrical cells having a diameter of less than 18 mm</i>		x	
<i>T7 - Overcharge</i>		x	
<i>T8 - Forced Discharge</i>		x	

Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto

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ADDITIONAL SUPPLIER INQUIRY

<i>Mark Yes or no with an "X"</i>	<i>Yes</i>	<i>No</i>
<i>Quality management system for manufacturing cells</i> <i>Does the manufacturer of the cell/battery manufacture the products based on a documented quality management system according to transport regulations?</i>	x	
<i>Are the following parameters exceeded?</i> <i>Lithium ion cell: more than 20 Wh</i> <i>Lithium metal cell: more than 1 g Lithium</i>		x

Check point 13 - 15 need to be answered when 12 has been ticked "YES":

<i>Mark Yes or no with an "X"</i>	<i>Yes</i>	<i>No</i>
<i>Does each cell incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?</i>	x	
<i>Is each cell equipped with an effective means of preventing external short circuits?</i>	x	
<i>Is each battery containing cells or series of cells connected in parallel equipped with effective means as necessary to prevent dangerous reverse</i>	x	




current flow (e.g. diodes, fuses, etc.) Not relevant for cells	
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Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion cells and lithium polymer cells

State of Charge (SoC) max. 30 %		
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CELLS INSTALLED IN EQUIPMENT

Check point 17 needs to be answered when the cells are installed in articles: Mark N/A, pass or fail with an "X"	N/A	Pass	Fail
17c) Only button cells enclosed?	x		
17b) Number of enclosed cells (other than button cells) per equipment	1pcs		
When the equipment is intentionally active/switched on during transport e.g. data loggers:			
17c) Confirmation that no dangerous amount of heat is emitted from the equipment		x	
17d) Confirmation that the equipment when transported by air fulfills the defined air transport standards for electromagnetic radiation according to DO-160		x	

Please mark the correct column with an X		
	x	
Single Cell or Battery	Build in Cell/ Battery	Over 100Wh
		

Place, Date	Title, Surname, First Name	Company stamp and Signature
Frankfurt am Main, den 02.04.2020	Pekcan, Pascal	

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E-Mail	tom@tct-lab.com
Website	http://www.tct-lab.com

ID-number and date

<i>Unique test report identification number</i>	TCT191210B124
<i>Date of test report</i>	2019.12.17

DESCRIPTION OF CELL (Mark with an“X”)

<i>Lithium ion cell</i>	X
<i>Lithium metal cell</i>	

Parameters

<i>Mass in gram (g):</i>	9.9g
<i>Lithium ion: Indicate watt-hour rating (Wh):</i>	1.85Wh
<i>Lithium metal: Indicate lithium metal content in gram (g):</i>	

Physical description of cell

Single Cell Lithium ion Battery

Model numbers

602240

TESTS AND RESULTS

<i>List of tests conducted and results</i> - Mark N/A, pass or fail with an "X"	N/A	Pass	Fail
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T1 - Altitude simulation		x	
T2 - Thermal Test		x	
T3 - Vibration		x	
T4 - Shock		x	
T5 - External Short Circuit		x	
T6 - Impact - for cylindrical cells having a diameter of at least 18 mm		x	
T6 - Crush - for prismatic cells, pouch cells, button cells and cylindrical cells having a diameter of less than 18 mm		x	
T7 - Overcharge		x	
T8 - Forced Discharge		x	

Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto

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ADDITIONAL SUPPLIER INQUIRY

Mark Yes or no with an "X"	Yes	No
Quality management system for manufacturing cells Does the manufacturer of the cell/battery manufacture the products based on a documented quality management system according to transport regulations?	x	
Are the following parameters exceeded? Lithium ion cell: more than 20 Wh Lithium metal cell: more than 1 g Lithium		x

Check point 13 – 15 need to be answered when 12 has been ticked "YES":

Mark Yes or no with an "X"	Yes	No
Does each cell incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?	x	
Is each cell equipped with an effective means of preventing external short circuits?	x	
Is each battery containing cells or series of cells connected in parallel equipped with effective means as necessary to prevent dangerous reverse current flow (e.g. diodes, fuses, etc.) Not relevant for cells	x	




Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion cells and lithium polymer cells

State of Charge (SoC) max. 30 %		
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17d)Confirmation that the equipment when transported by air fulfills the defined air transport standards for electromagnetic radiation according to DO-160		x	

Please mark the correct column with an X

	x	
Single Cell or Battery	Build in Cell/ Battery	Over 100Wh
		

Place, Date	Title, Surname, First Name	Company stamp and Signature
Frankfurt am Main, den 02.04.2020	Pekcan, Pascal	Technaxx Deutschland GmbH & Co. KG Kruppstr. 105 60388 Frankfurt a.M. Fon +49(0)69/90 47 55 2-0 · Fax -16 