



Stacking Test Report

堆码试验报告

ST/SG/AC.10/1/Rev.22 (Vol.II) /6.1.5.6章节

Sample name : **Lithium Manganese Dioxide Button Cell Package**

物品名称 : 锂锰电池运输包装

Model : **CR2032**

型号 :

Applicant : **SHENZHEN GMCELL TECHNOLOGY CO.,LTD**

申请商 : 深圳市高巨能科技有限公司

深圳立讯检测股份有限公司

Shenzhen LCS Compliance Testing Laboratory Ltd.





Stacking Test Report

堆码试验报告

Report No 报告号.....	LCSA123022038SD	
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Checked by (+ signature) 审核(签名)	Doris Ye 叶妙婷	叶妙婷
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Contents..... 页数.....	7 pages	
Date of issue 签发日期.....	2023.03.15	
Testing Laboratory Name 测试实验室.....	Shenzhen LCS Compliance Testing Laboratory Ltd. 深圳立讯检测股份有限公司	
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Applicant's Name 申请商.....	SHENZHEN GMCELL TECHNOLOGY CO.,LTD 深圳市高巨能科技有限公司	
Address 地址.....	Room G2205-G2206, Hualian Panorama International Building, 27 District, Bao'an, Shenzhen, China 深圳市宝安区新安街道 27 区华联城市全景 G 栋 2205&2206	
Manufacturer 制造商.....	SHENZHEN GMCELL TECHNOLOGY CO.,LTD 深圳市高巨能科技有限公司	
Address 地址.....	Room G2205-G2206, Hualian Panorama International Building, 27 District, Bao'an, Shenzhen, China 深圳市宝安区新安街道 27 区华联城市全景 G 栋 2205&2206	
Test Standard 测试标准.....	Recommendations on theTRANSPORTOFDANGEROUS GOODSModel Regulations Volume IITwenty-second revised edition chapters 6.1.5.6. 《关于危险货物运输的建议示范条例第二卷第二十二修订本6.1.5.6章节》	
Date of performance of test..... 测试执行日期.....	2023.03.07~2023.03.15	
Result 结果.....	Pass, the test samples package comply with the chapter 6.1.5.6 stacking test 合格, 本被测包装样品通过关于危险货物运输的建议示范条例第二卷第二十二修订本6.1.5.6章节的堆码测试	





一. Description of the packaging (包装信息描述):

Packaging dimensions 包装件尺寸(L*W*T)	(365*140*150)mm	Materials of package 包装材料	Paper 纸
Closure of package 包装封口	Closing by tapes 胶带密封	Fittings 配件	N/A
Packaging weight with filled materials 包装单件重量	2.46kg	Type of filled materials 试验内装物类别	Solid 固态
Maximum Capacity of the package 包装最大容积	7665cm ³	Thickness of the package 包装厚度	10mm
Outer packing 外包装	Corrugated case 瓦楞纸箱	Inside packing 内包装	Plastic tray 塑料托盘
Package Manufacturer 包装制造商	Shenzhen Xinhengpin Environmental Protection Packaging Co., LTD 深圳市鑫恒品环保包装有限公司		
Package Manufacturer address 包装制造商地址	Building A1, No. 70 Wuyuan Road, Lisonglang Community, Gongming Street, Guangming District, Shenzhen 深圳市光明区公明街道李松郎社区屋园路70号A1栋		
Test item 试验项目	Stacking Test 堆码试验		
Note: The details for filling material see below chart 运输填充细节看下表			

二. Filling materials description(包装运输填充物描述):

Test contents material 试验内装物	Lithium Manganese Dioxide Button Cell 锂锰电池	Type Number 规格型号	CR2032
Nominal voltage 标称电压	3.0V	Rated capacity 额定容量	220mAh
Trade Mark 商标	GMCELL	Numbers of the batteries filled 内装电池数量	560PCS
Manufacturer 制造商	SHENZHEN GMCELL TECHNOLOGY CO.,LTD 深圳市高巨能科技有限公司	Address of Manufacturer 制造商地址	Room G2205-G2206, Hualian Panorama International Building, 27 District, Bao' an, Shenzhen, China 深圳市宝安区新安街道 27 区华联城市全景 G 栋 2205&2206
Note: /			



**Test method description(测试方法):**

The test sample shall be subjected to a force applied to the top surface of the test sample equivalent to the total weight of identical packages which might be stacked on it during transport; where the contents of the test sample are liquids with relative density different from that of the liquid to be transported, the force shall be calculated in relation to the latter. The minimum height of the stack including the test sample shall be 3 meters. The duration of the test shall be 24 hours except that plastics drums, jerricans, and composite packagings 6HH1 and 6HH2 intended for liquids shall be subjected to the stacking test for a period of 28 days at a temperature of not less than 40°C.

在试验样品的顶部表面施加一力量,此力相当于运输时可能堆叠在它上面的同样数量包装件的总重量。如果试验样品内装的液体相对密度与待运液体的不同,则该力应按后者计算。包括试验样品在内的最小堆码高度应是3米。试验时间为24小时,但拟装液体的塑料桶、罐和复合包装6HH1和6HH2,应在不低于40°C的温度下经受28天的堆码试验。

Criterion for passing the test(通过试验的标准):

No test sample may leak. In composite packagings or combination packagings, there shall be no leakage of the filling substance from the inner receptacle or inner packaging. No test sample may show any deterioration which could adversely affect transport safety or any distortion liable to reduce its strength or cause instability in stacks of packages. Plastics packagings shall be cooled to ambient temperature before the assessment.

试验样品不得泄漏。对复合或组合包装而言,不得有所装的物质从内贮器和内包装中漏出。试验样品不得显出可能对运输安全有不利影响的损坏,或者可能降低其强度或造成包装件堆码不稳定的变形。在进行评估之前,塑料包装应冷却至环境温度。





三. Test details description(测试记录):

Items: 项目	Contents 内容	Description 描述	Verdict 判定
1	Test equipment 试验设备	Stacking tester: Constant compression testing equipment static loading; 堆码试验设备: 采用堆码压力试验机	Comply
2.	Testing method for loading 测试加载方式	Guided loading mothed by the loading platform 导向性加载平板施加负载	Comply
3	Testing condition and duration 测试条件和时间	Pre-conditioning in ambient 24hrs, ambient: 25°C, 50R.H. Testing duration: 24hrs 环境温度: 25°C, 50R.H; 环境温度下预处理24小时. 测试周期: 24小时	Comply
4	Package preparation 测试包装准备	Filling the transportation material as the 95% Maximum capacity: 填充相关的运输物质不小于95%最大容量	Comply
5	Loading condition 堆码加载条件	a. Stacking height: 3m b. Calculation the number of package: $n=300/H=6.5$ c. Calculation of the mass of the package Minimum Top Load= $(n-1) \times W$ A. 堆放高度: 3m B. 计算包装数量: $n=300/H=6.5$ C. 包装质量计算 最小顶部荷载= $(n-1) \times W=xxxKg$	46.74kg
6	Test samples number 测试样品数	Sample number: 3 样品数量: 3	Comply

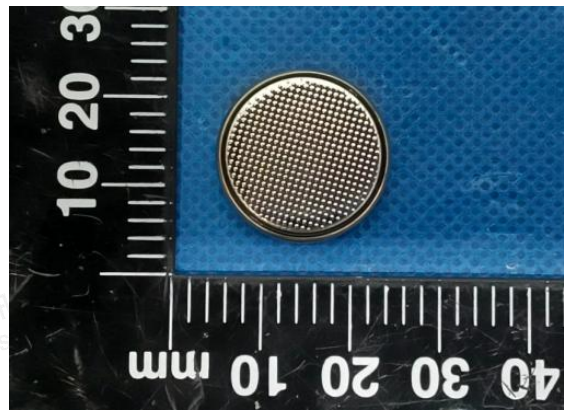
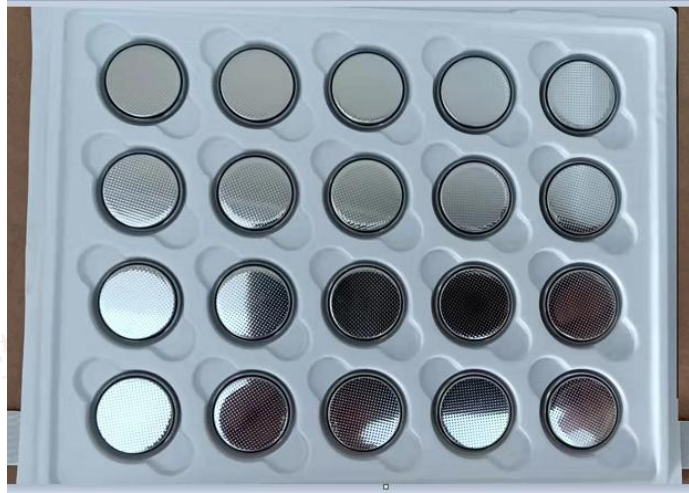
四. Test result record(测试结果记录):

Items: 项目	Requirements 要求	Test result record 试验结果	Verdict 判定
Stacking test 堆码测试	No test sample may leak. In composite packagings or combination packagings, there shall be no leakage of the filling substance from the inner receptacle or inner packaging. No test sample may show any deterioration which could adversely affect transport safety or any distortion liable to reduce its strength or cause instability in stacks of packages 试验样品不得泄漏。对复合或组合包装而言,不得有所装的物质从内贮器和内包装中漏出。试验样品不得显出可能对运输安全有不利影响的损坏,或者可能降低其强度或造成包装件堆码不稳定的变形。在进行评估之前,塑料包装应冷却至环境温度。	After the test: the package sample has no leakage, no damage, no adverse impact on transportation, and no impact on package stability 试验后: 包装样品无泄漏, 无破损, 不会对运输有不利影响, 包装稳定性无影响	Pass 合格





Photo documentes 样品图片





注意事项

Important Notice

1. The test report is invalid without the official stamp of LCS.

本报告书无LCS盖章无效。

2. The test report is invalid without the signatures of Ratifier, Reviewer and Testing engineer.

本报告书无批准人、审核人、及主检人签名无效。

3. Nobody is allowed to partly photocopy this test report without written permission of LCS.

未经LCS书面同意，不得部分地复制本报告书。

4. The report is invalid when anything of following happens – illegal transfer, reproduce, embezzlement, imposture, modification or tampering in any media form.

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5. Product information and customer information provided by the applicant, we are not responsible for its authenticity.

产品信息和客户信息由申请人提供，我们不对其真实性负责。

6. The test report is valid for the tested samples only.

本报告仅对本次测试样品有效。

7. The Chinese contents in this report are only for reference.

本报告中的中文内容仅供参考。

8. Objections to the test report must be submitted to LCS within 15 days.

对报告书若有异议，应于收到报告之日起15天内向本公司提出。

End of report

