

Lithium Ion Battery Test Summary

LITHIUM CELLS OR BATTERIES TEST SUMMARY IN ACCORDANCE WITH SUB-SECTION 38.3 OF UN MANUAL OF TESTS AND CRITERIA

Product Manufacturer: ROTHENBERGER Werkzeuge GmbH
Spessartstraße 2-4
D-65779 Kelkheim
Germany

Telephone: +49 6195 / 800-0
Email: compliance@rothenberger.com
Web: www.rothenberger.com

Lithium Ion Cells, Device Integrated Lithium-Ion-Batteries, Device-Integrated-Li-Polymer-Cells and Rothenberger Lithium-Ion-batteries Li-Power/LiHD have been successfully tested and comply with UN Model Regulation, Manual of Test and Criteria, Part III subsection 38.3.

PERFORMED TESTS			RESULTS	
			Cells	Batteries
38.3.4.1	T1	Altitude Simulation	Pass	Pass
38.3.4.2	T2	Thermal Test	Pass	Pass
38.3.4.3	T3	Vibration	Pass	Pass
38.3.4.4	T4	Shock	Pass	Pass
38.3.4.5	T5	External Short Circuit	Pass	Pass
38.3.4.6	T6	Impact / Crush	Pass	Not applicable
38.3.4.7	T7	Overcharge	Not applicable	Pass
38.3.4.8	T8	Forced Discharge	Pass	Not applicable

The UN38.3 tests were performed at least by one of the following test houses and were tested to UN Manual Test and Criteria Revision 3 Amendment 1 or subsequent revisions or amendments.

TÜV Rheinland InterCert Kft. Termék üzletág Villamos laboratórium Beke u. 41-43 H-1135 Budapest, Hungary Telephone: +36-1-461-1100 E-Mail: tuv@hu.tuv.com Web: www.tuv.hu	Samsung SDI Safety Center 467, Beonyeong-ro Seobuk-gu, Cheonan-si Chungcheongnam-do, Korea Telephone: +82-41-560-3114 E-Mail: sdimaster@samsung.com Web: www.samsungsdi.com
Pony Testing International Group Bldg1, Court 66, Jindai Road Haidian District Beijing, China Telephone: +86-10-83055000 E-Mail: pony@ponytest.com Web: www.ponytest.com	

Product Test Information - Cells

Model	Physical	Weight	Rating	Test Report	
number	Description	[kg]	[Wh]	number	date
Samsung INR21700-40T	Li-ion cylindrical cell	0,067	14,4	SDI-UN-170306-01	2017-03-06
Samsung INR21700-30T	Li-ion cylindrical cell	0,070	10,8	SDI-UN-170331-01	2017-03-31
Samsung INR18650-20R	Li-ion cylindrical cell	0,045	7,2	SDI-UN-150630-03	2015-06-30
Samsung INR18650-25R	Li-ion cylindrical cell	0,045	9,0	SDI-UN-170331-02	2017-03-31
Murata US18650VTC4	Li-ion cylindrical cell	0,045	7,2	PT-1094	2013-08-27
Samsung ICR18650-26F	Li-ion cylindrical cell	0,047	9,62	H06043012621D	2013-06-21

Product Test Information - Batteries

Model	Physical Description	Weight	Rating	Test Report	
number		[kg]	[Wh]	number	date
Rothenberger Nr. 1000001652 CAS 637596000 Base 321000550	Li-Ion, 18 V – 2,0 Ah, 5S1P, Li-Power	0,393	36,0	28251003 001	2019-09-27
Rothenberger Nr. 1000001652 CAS 637591000 Base 321000480	Li-Ion, 18 V – 4,0 Ah 5S2P, Li-Power	0,648	72,0	28248081 001	2018-11-09
Rothenberger Nr. 1000002548 CAS 637305000 Base 321001000	Li-Ion, 18V - 4,0 Ah 5S1P, LiHD	0,584	72,0	28246518 001	2018-09-17
Rothenberger Nr. 1000002548 CAS 637303000 Base 321000980	Li-Ion, 18V – 8,0 Ah 5S2P, LiHD	0,976	144,0	28246520 001	2017-12-05
Rothenberger Nr. 1500000696 Nr. 1000000842 Nr. 1000000861 Nr. 1000000862	Li-Ion, 3,7V – 5,2 Ah Integrated in ROSCOPE i2000 Handheld Unit	0,954	19,24	H06043012621D	2013-06-21

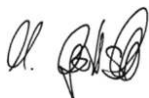
Signature of responsible person of the Company

Herstellerunterschrift

Manufacturer/ authorized representative signature



ppa. Thorsten Bühl
Director Corporate
Technology



i. A. Maximilian Gottschalk
Head of New Product
Development