

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: Elektrostar GmbH
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Lithium Ion cells and Starmix Lithium-Ion-batteries Li-Power and 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
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Product Test Information - Cells

Model	Physical Description	Weight	Rating	Test report	
		[kg]	[Wh]	number	date
Samsung INR-21700	Li-ion cylindrical cell	0,072	18,0	SDI-UN-192426-03	2019-04-19
Samsung INR-18650	Li-ion cylindrical cell	0,045	7,2	SDI-UN-150630-03	2015-06-30

Product Test Information - Batteries

Model	Physical Description	Weight	Rating	SoC	Test report		
		[kg]	[Wh]	[%]	number	date	regulation
Starmix Art.-Nr. 457031 CAS 637085000 Base 321001610	Li-Ion 18 V - 10,0 Ah 5S2P	0,996	180,0	> 20 < 30	28253888 002 T211-0815/20	2020-09-23 2020-11-04	UN 3480 UN 3481
Starmix Art.-Nr. 459745 CAS 637085000 Base 321001690	Li-Ion 18 V – 5,2 Ah 5S2P	0,670	93,6	> 20 < 30	28247087 001	2019-02-20	UN 3480 UN 3481
Starmix Art.-Nr. 461205 CAS 637315000 Base 321001670	Li-Ion 18 V – 2,0 Ah 5S1P	0,383	36,0	> 20 < 30	HU213J99 004	2021-05-21	UN 3480 UN 3481

Signature of responsible person of the Company

i.V. Stefan Benner (digitally signed)
Compliance Manager