



Test Report

Number: SZHH01613646

Applicant: LIVALL TECH CO., LTD.
ROOM 904, 9/F R&D BUILDING,
SHENZHEN TSINGHUA HI-TECH
PARK. NANSHAN DISTRICT,
SHENZHEN, CHINA

Date: Oct 22, 2021

Attn: MIAO AI

Sample Description:

Eight (8) pieces of submitted sample said to be :

Item Name	:	Smart Commuter Helmet
Item No.	:	C21
Size	:	57-61cm
Material for Helmet	:	Shell PC Liner EPS
Date Manufactured	:	Aug-2021
Date Sample Received	:	Sep 15, 2021
Testing Period	:	Sep 15, 2021 ~ Oct 21, 2021



Tests conducted:

As requested by the applicant, refer to attached page(s) for details.





中国认可
国际互认
检测
TESTING
CNAS L0327

Test Report

Number: SZHH01613646

Conclusion:

Tested sample
Submitted helmets

Standard

NTA 8776:2016-12 Standard Specification
for Helmets worn by users of high speed
electrically power assisted bicycles

Result

Pass

Authorized by:
For Intertek Testing Services
Shenzhen Ltd.

Andy Fu



Andy, Fu Bo
Title: Asst. Manager
CNAS Approved Signatory



Page 2 of 14



Test Report

Number: SZHH01613646

Tests Conducted

- 1 Standard Specification for Helmets worn by users of high speed electrically power assisted bicycles
As per NTA 8776:2016-12: Standard Specification for Helmets worn by users of high speed electrically power assisted bicycles.

Number of samples tested: Eight (8) sets.

Helmets size: 57-61cm

Test headform: J/M

Clause	Test Items	Result
4.1	Materials For those parts of the helmet coming into contact with the skin, the material used should be known not to undergo appreciable alteration from contact with sweat or with substances likely to be found in toiletries. Materials shall not be used which are known to cause skin disorders.	
4.2	Construction The helmet normally consists of a means of absorbing impact energy and means of retaining the helmet on the head in an accident. The helmet should be durable and withstand handling. The helmet shall be so designed and shaped that parts of it (visor, rivets, ventilators, edges, fastening device and the like) are not likely to injure the user in normal use. NOTE Helmets should: - have low weight; - be ventilating; - be easy to put on and take off; - be usable with spectacles; - not significantly interfere with the ability of the user to hear traffic noise.	P
4.3	Field of vision When tested in accordance with 5.7 there shall be no occultation in the field of vision bounded by angles as follows (see Figure 1 in NTA 8776): - horizontally: min. 105° from the longitudinal vertical median plane to the left and right hand sides; - upwards: min. 25° from the reference plane; - downwards: min. 45° from the basic plane.	P (Horizontally: >105° Upwards: >25° Downwards >45°)
4.4	Shock absorbing capacity The helmet shall give protection to the forehead, rear, sides, temples and crown of the head. When tested in accordance with 5.3 and 5.4 the peak acceleration shall not, for each impact, exceed 250 g for the velocity of 6.5 (+0.1, 0), m/s on the flat anvil, and 5.42 (+0.1, 0)m/s on the kerbstone anvil. NOTE These are theoretically equivalent to 2154 mm and 1497 mm drop heights respectively..	P (See appendix)



Page 3 of 14



Test Report

Number: SZHH01613646

Tests Conducted

Clause	Test Items	Result
4.5	Durability After being tested the helmet shall not exhibit damage that could cause significant injury to the wearer (sharp edges, points).	P (No damage & significant injury)
4.6	Retention system	
4.6.1	General Means shall be provided for retaining the helmet on the wearer's head. All parts of the retention system shall be securely attached to the helmet.	P
4.6.2	Chin strap The chin strap shall not include a chin cup. Any chin strap shall be no less than 15 mm wide (W). Chin straps may be fitted with means of enhancing comfort for the wearer.	P (W: 15.6mm)
4.6.3	Fastening device Any retention system shall be fitted with a device to adjust and maintain tension in the system. The device shall be capable of adjustment so that the buckle does not sit on the jaw bone.	P
4.6.4	Colour No part of the retention system shall be coloured green. NOTE It is recommended that the opening mechanism be marked with red or orange colour.	P (Black)
4.6.5	Strength When tested in accordance with 5.5, the dynamic extension of the retention system shall not exceed 35 mm and the residual extension shall not exceed 25 mm. For this purpose, extension includes slippage of the fastening device. Damage to the retention system shall be accepted provided that the above requirements are met. NOTE In this test, slippage of the fastening device can be measured and recorded separately from other contributions to the extension but this is for information only and is not subject to a separate requirement.	P (See appendix)
4.6.6	Effectiveness When tested in accordance with 5.6 the helmet shall not come off the headform.	P (Did not come off)
4.6.7	Ease of release Following the strength test in accordance with 5.5 and with the load still applied, it shall be possible to open the release system with one hand.	P



Page 4 of 14



Test Report

Number: SZHH01613646

Tests Conducted

Clause	Test Items	Result
5.2	<p>Inspection and determination of mass Inspect the helmet to ascertain whether it is suitable for its intended purpose and fulfils the general requirements in 4.2.</p> <p>Determine the mass of the helmets of the same size submitted for testing. Calculate and record the mean value in g rounded off to the nearest 10 g, stating the size of the helmet.</p>	P (See appendix)
6	<p>Marking Each helmet shall be marked in such a way that the following information is easily legible by the user and is likely to remain legible throughout the life of the helmet: a) number of this standard(NTA 8776); b) name or trademark of the manufacturer; c) designation of the model; d) designation: Helmet for S-EPAC cyclists size or size range of the helmet, quoted as the circumference(in centimeters) of the head which the helmet is intended to fit ; e) weight of the helmet (the average mass in grams determined according to 5.2); f) year and quarter of manufacture; g) following text: "Warning! This helmet should not be used by children while climbing or doing other activities when there is a risk of strangulation/hanging if the child gets trapped with the helmet." In addition, if the helmet has components made of material which are known to be adversely affected by contact with hydrocarbons, cleaning fluids, paints, transfers or other extraneous additions, the helmet shall carry an appropriate warning.</p>	P
	<p>If there is a consumer sales packaging, the information specified in a), b), d) and h) shall also be given on that package. The text shall be of minimum font size 12.</p>	P



Test Report

Number: SZHH01613646

Tests Conducted

Clause	Test Items	Result
7	<p>Information supplied by the manufacturer</p> <p>With every helmet, clear information in the language of the country of sale shall be given as follows:</p> <p>a) that the helmet can only protect if it fits well and that the buyer should try different sizes and choose the size which feels secure and comfortable on the head;</p> <p>b) that the helmet should be adjusted to fit the user, e.g. the straps positioned so that they do not cover the ears, the buckle positioned away from the jawbone and the straps and buckle adjusted to be both comfortable and firm;</p> <p>c) how the helmet should be positioned on the head to ensure the intended protection is provided (e.g. hat it should be placed so as to protect the forehead and not be pushed too far over the back of the head);</p> <p>d) that a helmet cannot always protect against injury;</p> <p>e) that a helmet subjected to a severe impact should be discarded and destroyed;</p> <p>f) a statement of the danger of modifying or removing any of the original component parts of the helmet other than as recommended by the manufacturer, and that helmets should not be adapted for the purpose of fitting accessories in a way not recommended by the manufacturer.</p>	P

Abbreviation: P = Pass

Appendix:

Section 5.2 – Inspection and determination of mass

Sample No.	Mass (g)
1	415.4
2	416.5
3	404.3
4	403.5
5	414.5
6	416.2
7	417.4
8	419.1
Average(rounded off to nearest 10g)	413.4(410)



Page 6 of 14



Test Report

Number: SZHH01613646

Tests Conducted

Section 4.4–Shock absorbing capacity

Ambient temperature at time of test: 22.5°C

Test headform: J

Sample No.	Environment Impact	Test anvil	Location Impact	Velocity (m/s)	Peak (Gn)	Compliant
1	High	Kerbstone	Left front	5.44	121.0	Pass
		Flat	Rear	6.56	202.7	Pass
2	Low	Flat	Rear	6.54	152.4	Pass
		Kerbstone	Crown	5.45	133.9	Pass
3	Artificial ageing	Kerbstone	Left	5.45	124.1	Pass
		Flat	Right	6.53	202.8	Pass

Test headform: M

Sample No.	Environment Impact	Test anvil	Location Impact	Velocity (m/s)	Peak (Gn)	Compliant
5	High	Kerbstone	Right	5.43	112.7	Pass
		Flat	Left	6.57	163.4	Pass
6	Low	Flat	Crown	6.59	192.0	Pass
		Kerbstone	Front	5.49	125.0	Pass
7	Artificial ageing	Kerbstone	Rear	5.44	111.5	Pass
		Flat	Front	6.57	197.3	Pass

Section 4.6.5–Retention system strength

Test headform: J

Sample No.	Dynamic extension (mm)	Residual extension (mm)	Compliant
2	11.4	9.4	Pass
3	5.4	5.2	Pass

Test headform: M

Sample No.	Dynamic extension (mm)	Residual extension (mm)	Compliant
6	13.2	11.1	Pass
7	18.2	7.5	Pass



Page 7 of 14



Test Report

Number: SZHH01613646

Tests Conducted

Photos for reference:



Page 8 of 14

Test Report

Number: SZHH01613646

Tests Conducted

Back view	
Top view	



Page 9 of 14

Test Report

Number: SZHH01613646

Tests Conducted

Bottom view	
Label	<p>Smart Commuter Helmet Model No.: C21 Weight: 410g Size: 57-61cm Date of manufacture: 2021/10 Helmet used for pedal cyclists, skateboarders or roller skates EN 1078:2012+A1:2012 NTA 8776:2016-12 Helmet for S-EPAC cyclists Manufacturer: LIVALI Tech Co., Ltd. Manufacturer address: Room 904, 9F, R&D Building, Shenzhen Tsinghua Hi-Tech Park, Nanshan District, Shenzhen, China US Importer: Livali IoT Technology, Inc. Address: 2010 CROW CANYON PLACE SUITE 100 SAN RAMON California 94583 Tel: +1 415 788-2371 Ext. 242 CPSC1203 This Helmet Complies with U.S. CPSC Safety Standard for Bicycle Helmets for Persons Age 5 and Older FCC ID: 2AEKF-C20 Production Lot: A1</p> <p>MADE IN CHINA</p> <p>UK CE</p> <p>WARNING: THIS HELMET SHOULD NOT BE USED BY CHILDREN WHILE CLIMBING OR DOING OTHER ACTIVITIES WHEN THERE IS A RISK OF STRANGULATION HAZARD IF THE CHILD GETS TRAPPED WITH THE HELMET. THIS HELMET CAN PREVENT ALL HEAD INJURIES, EVEN IN VERY LOW SPEED ACCIDENTS, SERIOUS INJURY OR DEATH CAN OCCUR. FOR BEST PROTECTION, FOLLOW MANUAL, REPAIR INSTRUCTIONS. HELMET MUST BE ENOUGH TO BE STRAP COMFORTABLY TIGHT AGAINST THROAT. FASTEN BUCKLE SECURELY. DESTROY AND REPLACE HELMET AFTER IMPACT/DEFORMATION MAY NOT BE ADEQUATE IN FUTURE IMPACT. DAMAGE CAN BE INVISIBLE, DON'T NOTICE ANYTHING ON THE HELMET. IF COULD RESUME THE HELMET'S ABILITY OF PROTECTION, DO NOT CLEAN WITH SOLVENTS, BLEACHES AND STRONG OXIDIZANTS, THEY CAN DAMAGE HELMET. MAINTAINED INVISIBLELY. USE MILD SOAP AND WATER ONLY. READ MANUAL, DESIGNED BY LIVALI, ASSUMED IN SHENZHEN CHINA.</p>



Test Report

Number: SZHH01613646

Tests Conducted

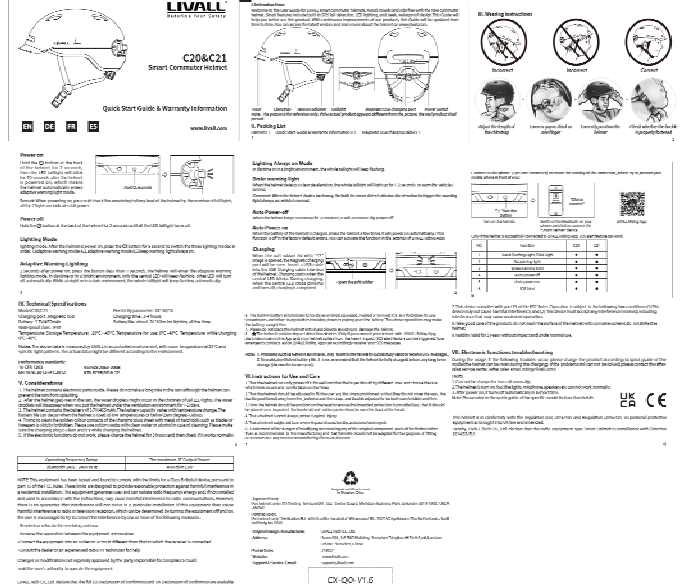



Page 11 of 14

Test Report

Number: SZHH01613646

Tests Conducted



<p>Instruction</p>	
<p>Test line (Test headform: J)</p>	



Test Report

Number: SZHH01613646

Tests Conducted

<p>Test line (Test headform: M)</p>	
<p>Impact sites #1</p>	



Page 13 of 14



Test Report

Number: SZHH01613646

Tests Conducted



End of report

The statements of conformity reported have considered the decision rule agreed, namely that Intertek have taken account of measurement uncertainty as calculated by Intertek, and applied according to ILAC-G8/09:2019 (Non-binary acceptance based on guard band $w = U$) except designation from the customer, regulation or test specification. This decision rule only applies to the numeric test results.

The sample(s) and sample information hereto are provided by the client who shall be solely responsible for the authenticity and integrity thereof. The results shown in this report relate only to the sample(s) received and tested. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct. This report shall not be reproduced unless with prior written approval from Intertek.



Page 14 of 14

