



TEST REPORT
ISO 6742-2:2015+A1:2018

Cycles - Lighting and retro-reflective devices —Part 2: Retro-reflective devices

Report Number.....: ZHT-221010009S

Date of issue.....: Oct. 11, 2022

Total number of pages.....: 8 pages

Name of Testing Laboratory preparing the Report.....: **Guangdong Zhonghan Testing Technology Co., Ltd.**
Room 104, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Applicant's name.....: **Shenzhen Happyrun Intelligent Technology Co., Ltd.**
Address.....: 3F, Building A, Runfa Tech Park, NO.25, Mudun Road, First Industry Park, Lou Cun, Gongming, Guangming, Shenzhen, China

Test specification:

Standard.....: ISO 6742-2:2015+A1:2018

Test procedure.....: Test report

Non-standard test method.....: N/A

Test Report Form No.....: **ISO 6742-2A**

Test Report Form(s) Originator.....: ZHT

Master TRF.....: 2018-04-05

Test item description.....: **Front and rear reflectors(Power assisted electric bicycle)**

Trade Mark.....: 

Manufacturer.....: Same as applicant

Model/Type reference.....: HR-G50

Ratings.....: --



Testing procedure and testing location:

Testing Laboratory.....: **Guangdong Zhonghan Testing Technology Co., Ltd.**

Address.....: Room 104, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Date of Test.....: Sept. 28, 2022 to Oct. 10, 2022

Tested by (name + signature).....: Jimmy Chen

Reviewer (name + signature).....: Summer Yang

Approved (name + signature).....: Levi Lee





List of Attachments (including a total number of pages in each attachment):

Attachment 1: 4 pages (Photo)

Summary of testing:

Tests performed (name of test and test clause):

-ISO 6742-2:2015+A1:2018

The submitted samples were found to comply with the requirements of above specification.

Testing location:

Guangdong Zhonghan Testing Technology Co., Ltd.
Room 104, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Summary of compliance with National Differences (List of countries addressed):

The product fulfils the requirements of ISO 6742-2:2015+A1:2018

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

Front and rear reflectors(Power assisted electric bicycle)

Model: HR-G50

Manufacturer: Shenzhen Happyrun Intelligent Technology Co., Ltd.
Address: 3F, Building A, Runfa Tech Park, NO.25, Mudun Road, First Industry Park, Lou Cun, Gongming, Guangming, Shenzhen, China
Made in China

Remark on above marking:

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Possible test case verdicts:

- test case does not apply to the test object.... : N/A
- test object does meet the requirement..... : P (Pass)
- test object does not meet the requirement.... : F (Fail)

Testing:

Date of receipt of test item..... : Sept. 28, 2022
 Date (s) of performance of tests..... : Sept. 28, 2022 to Oct. 10, 2022

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
 "(See appended table)" refers to a table appended to the report.

Throughout this report a comma / point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IEC60335-1:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... :

Yes
 Not applicable

When differences exist; they shall be identified in the General product information section.

General product information and other remarks:



ISO 6742-2			
Clause	Requirement – Test	Result	Verdict
4	General		P
4.1	Symbols and units used		P
4.2	Chronological order of tests (only for reflectors)	Compliance with standard requirements	P
5	Photometrical requirements		P
	In order to follow different requirements in different countries, the photometrical requirements are divided into 2 groups: Group A and Group B.	Compliance with standard requirements	P
5.1	Reflectors	Compliance with standard requirements	P
5.2	Retro-reflective tyres		N/A
	When tested by the method given in Clause 8, the CIL values for a retro-reflective tyre shall not be less those specified in Table 11 and Table 12. In case where D is less than 420 mm the minimum photometric value for each observation and entrance angle shall be equal to the value for D = 420 mm		N/A
5.3	Retro-reflective spokes or spoke cases		N/A
	Retro-reflective spokes or spoke cases are only applicable in Group A. When tested by the method given in Clause 8, the CIL values for retro-reflective spokes shall not be less than those specified in Table 13.		N/A
6	Colorimetric requirements	Compliance with standard requirements	P
	When determined by the method given in Clause 9, the colour of the reflected light shall be located within the appropriate area defined by CIE chromaticity coordinates specified in Table 15.		P
7	Physical requirements	Compliance with standard requirements	P
7.1	Reflectors	Compliance with standard requirements	P
	The reflector and/or mount shall incorporate a distinct preferred assembly method to ensure that the reflector can be mounted in its designed orientation with regard to the bicycle.		P
7.1.2.2	Temperature resistance test	Compliance with standard requirements	P
7.1.2.3	Impact test (except for conventional reflector of Group A)		P
7.1.2.4	Moisture resistance test	Compliance with standard requirements	P
	Strip all removable parts from the reflective device, whether part of a lamp or not, and immerse for 10 min in water at a temperature of $(50 \pm 5)^\circ \text{C}$, the highest point of the upper part of the reflective surface being 20 mm below the surface of the water. Repeat this test after turning the reflective device through 180° so that the reflective surface is at the bottom and rear face is covered by about 20 mm of water. Then immediately immerse the optical unit in the same procedure in water with a temperature of $(25 \pm 5)^\circ \text{C}$.		



ISO 6742-2			
Clause	Requirement – Test	Result	Verdict
7.1.2.5	Resistance to fuels	Compliance with standard requirements	P
	Soak the outer surface of the reflector on a mixture of 70 % of n-heptane and 30 % of toluene (by "volume). After 5 min, clean the surface by wiping with a cloth.		P
7.1.2.6	Resistance to lubricating oils	Compliance with standard requirements	P
	Wipe the outer surface of the reflex reflector lightly with cotton soaked in detergent lubricating oil. After 5 min, clean the surface by wiping with a cloth.		P
7.2	Retro-reflective tyres		N/A
7.2.1	Form and location		N/A
7.2.2	Test methods		N/A
7.2.2.3	Impact resistance		N/A
7.2.2.4	Resistance to fuels		N/A
7.2.2.5	Resistance to lubricating oils		N/A
7.2.2.6	Adhesion		N/A
7.2.2.7	Abrasion resistance		N/A
7.2.2.8	Water test		N/A
7.3	Retro-reflective spokes or spoke cases		N/A
7.3.1	Construction		N/A
	The retro-reflective spokes or spoke cases and/or mount shall incorporate a distinct preferred assembly method to ensure that the retro-reflective spokes or spoke cases can be mounted in its designed orientation with regard to the bicycle.		N/A
7.3.2	Test methods		N/A
8	Photometric test	Compliance with standard requirements	P
8.1	General		P
8.2	Reflectors		P
8.3	Retro-reflective tyres		N/A
8.4	Retro-reflective spokes or spoke cases		N/A
9	Colorimetric test	Compliance with standard requirements	P
9.1	Instrumental measurements		P
9.2	Visual comparison		P
9.3	Use of methods		P
10	Marking		P
	In case the retro-reflective device doesn't bear any official authority marking, it shall be durably marked with:a) The number of the part of ISO 6742, i.e. ISO 6742/2, followed by the letter of the Group (A or B);b) The manufacturer's name or trade-mark. Marking a) shall appear on the front of the illuminating surface, or on one of the illuminating surfaces, in characters not less than 1 mm in height.		P

Attachment 1: Photos of the product
EUT Photo 1



EUT Photo 2



EUT Photo 3



EUT Photo 4



***** END OF REPORT *****