

Test Report No.: GZHL1805020856SP Date: Jul 24, 2018 Page 1 of 5

GUANGDONG SENHAI SPORTING GOODS CO., LTD. NO.11, XINHUI ROAD, SHUNDE INDUSTRIAL ZONE, WUSHA, DALIANG SHUNDE DISTRICT, FOSHAN, GUANGDONG PROVINCE 528300 CHINA

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description : SIMPLE ICE SKATE

Style / Item No. : PW-220

Test Performed : Selected test(s) as requested by applicant

Sample Receiving Date : May 22, 2018

Test Performing Date : May 22, 2018 to Jul 24, 2018

Test Result(s) : For further details, please refer to the following page(s)

Signed for and on behalf of Guangzhou Branch, SGS-CSTC Ltd.

Arthur Mak

Approved Signatory



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention:To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307

198 Kezhu Road,Sciented Park Guangzhou Economic & Technology Development District,Guangzhou China 510663 t (86-20) 82155555 f (86-20) 82075191 www.sgsgroup.com.cn 中国 - 广州 - 经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075191 e sgs.china@sgs.com



Test Report No.: GZHL1805020856SP Date: Jul 24, 2018 Page 2 of 5

Test Conducted: Refer to EN 15638:2009 Ice skating-Safety requirements and test methods

1. Scope:

This standard applies to ice skates intended for users with a body mass up to 100 kg for ice skating excluding the field of sports competitions.

It specifies the minimum safety requirements for ice-skates as well as requirements for test methods, marking and information supplied by the manufacturer to reduce the risk of injuries to both third parties and the user during their normal use.

2. Number of Test Specimen: 1 pair (EU 24-31).

3. Test Results: Details shown as following table

Clause	Test Items	Verdict
4.2	Requirements for design	
4.2.1	Connection of the runner to the boot Binding elements shall prevent unintentional disconnection of the runner from the user's boot. This requirement is considered to be fulfilled, if the correct functioning of the ice skate is not impeded by broken, disconnected or loosened binding elements after the tests specified in Clause 5.	See remark 7 & 8
4.2.2	Attachment of the blade in the blade holder If blade and blade holder form a unit, it shall be so designed that when tested according Clause 5 the blade neither loosens nor disconnects.	NA
4.2.3	Linearity of the runner The runner of the ice skate shall not have a deviation from linearity of more than 0.5 mm over a length of 150 mm.	NT
4.2.4	Position of the runner Any part of the runner shall not protrude over the toe cap of the boot by more than 15% of the sole length.	Pass
4.2.5	Impact resistance The ice skate shall be designed so as to withstand the impact loads to which it is exposed during normal use. This requirement is considered to be fulfilled if the correct functioning of the ice skate is not impeded by any breaking, disconnection or loosening of the runner after the tests specified in Clause 5.	Pass* See remark 1, 4 & 5
4.2.6	Surface condition All protruding components and edges on the ice skate which can come into contact with body parts during normal use shall be deburred or shall be designed so as to prevent any injuries. Protruding fastening elements shall not stand out by more than the diameter of the fastening element.	Pass
4.2.7	Condition of the blade	I
4.2.7.1	Hardness The blade shall have an effective hardening depth of at least 2.5 mm. The hardness value shall be at least 52 HRC on all hardening depth. These requirements do not apply, if the blade is not intended for regrinding.	NT
4.2.7.2	Grinding (sharpening) The blade shall be grinded so as to be functional. The necessity to regrind or replace the blade shall be indicated in the information supplied by the manufacturer.	NT



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms

198 Kezhu Road,Scientech Park Guangzhou Economic & Technology Development District,GuangzhouChina 510663 t (86-20) 82155555 f (86-20) 82075191 www.sgsgroup.com.cn 中国 - 广州 - 经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075191 e sgs.china@sgs.com



Test Report No.: GZHL1805020856SP Date: Jul 24, 2018 Page 3 of 5

Clause	Test Items	Verdict
4.2.7.3	Teeth If a blade is equipped with teeth, the bottom teeth shall only come into contact with the ice, when the ice skate has an inclination of at least 10° towards the front, measured at the tangent of the runner at point A. See Figure 2. Key A 1/2 L	NA
4.2.7.4	Shape of blade end The end of the blade shall either be rounded or shaped in such a manner that there is no angle smaller than 90°.	Pass
4.2.7.5	Thickness The blade shall have a thickness of at least 2.8 mm.	See remark 6
6	Marking Each ice skate shall be legibly and durably marked with the following information: a) The number of this standard; b) The name, trademark or other means of identification of the manufacturer or retailer; c) Means of identification of the model; d) The boot size; e) Information on material identification of the boot.	NT
7	Information supplied by the manufacturer	
7.1	General Easily understood information supplied by the manufacturer shall be provided with each pair of ice skates. This shall ensure that even a novice user will be able to use, handle and maintain the ice skates. Texts describing difficult or complicated operations are to be complemented with illustrations. The manufacturer's information shall be supplied together with the recommendation that this information shall be retained by the user for future reference.	NT
7.2	Contents	
7.2.1	General The information supplied by the manufacturer shall contain, in text or picture form, at least the information specified in 7.2.2, 7.2.3 and 7.2.4.	NT



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention:To check the authenticity of testing / insection reports & certificate, please contact us at telephone: (86-755) 8307

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307
1443, or email: CN.Doccheck@sgs.com
198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075191 www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075191 e sgs.china@sgs.com



Test Report No.: GZHL1805020856SP Date: Jul 24, 2018 Page 4 of 5

Clause	Test Items	Verdict
7.2.2	Information about the construction of the ice skate This information shall contain at least: a) Advice that no modifications shall be made that can impair safety; b) Advice indicating when self-locking nuts and other self-locking fixings may loose their effectiveness.	NT
7.2.3	Instructions for use The instructions for use shall contain at least: a) Description of the correct techniques for use and for braking; b) Advice that the user should always wear protective equipment; c) Instruction to check before each use that the connective components of the ice skate are firmly secured; d) Advice indicating any practical use (e.g. figure skating, ice hockey, normal skating); e) Advice concerning the elimination of any anticipated incorrect use of an ice skate; f) Instruction to use blade protectors outside the ice surface.	NT
7.2.4	Servicing and maintenance instructions Service and maintenance instructions shall state that regular maintenance enhances the safety of the equipment and shall include: a) Advice regarding the various properties of the ice skate and its maintenance; b) Advice concerning the replacement/exchange of individual parts; c) Note regarding the necessity of regrinding; d) Advice for running checks.	NT

Remark:

- 1. If the testing of Clause5.5 Resistance against Impact Loads can't not be concluded within 5 min, the test shall be paused and the test sample shall be placement at temperature of (-20 ± 1) °C for another 1 hour;
- 2. NA --- Not applicable;
- 3. NT --- Not test as per client's request;
- 4. The blade deformed after test.
- 5. The adjustment system can not use as usual after test.
- 6. The blade is 1.62mm each side (total 2 side).
- 7. The shoe disconnected from the sample when the tensile force was 458N.

中国·广州·经济技术开发区科学城科珠路198号

8. The sample deformed during the test of clause 5.4.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone (86-755) 8307

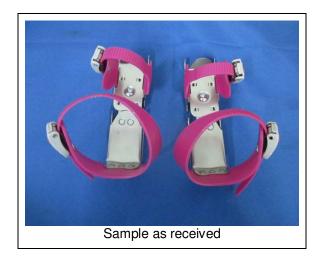
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307
1443, or email: CN. Doccheck@egs.com
[188 Kezlu Road Scientech Park Quargohou Economic & Technology Development District, Quargohou China 510663 t (86-20) 82155555 f (86-20) 82075191 www.sgsgroup.com.cn

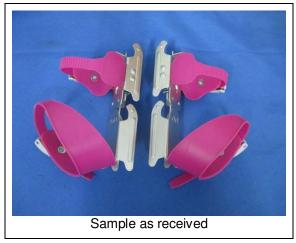
邮编: 510663 t (86-20) 82155555 f (86-20) 82075191 e sgs.china@sgs.com



Test Report No.: GZHL1805020856SP Date: Jul 24, 2018 Page 5 of 5

Sample Photo(s):





End of Report



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms

Attention:To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443, or email: CN.Doccheck@sgs.com 198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075191 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075191 e sgs.china@sgs.com

中国·广州·经济技术开发区科学城科珠路198号