

**TEST REPORT****EN 352-1
Hearing protectors - General requirements - Part 1:
Earmuffs**

Report Number.: JAT24100802158SR-2

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Tested by (name + signature) : Roger Zheng

Approved by (name + signature) : Tim You



Testing Laboratory.....: Dongguan Jun'an Testing & Certification Co., Ltd.

Address: Room 303, Building 1, No.316, Renzhou Road, Shatian Town,
Dongguan City, Guangdong Province, China.

Testing location / address.....: Same as above

Applicant's name.....: WEABANDICTION CO., LTD.

Address: L19-05 of Ronghu Square, Phase IV, Ronghu, 408 Pingji Avenue,
Fuchengao Community, Pinghu Street, Longgang District,
Shenzhen, Guangdong,CN(518111)**Test specification:**Standard : EN 352-1: 2020
Hearing protectors - General requirements - Part 1:
Earmuffs

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

Test item description: Baby Hearing Protection Earmuffs

Trade Mark: N/A

Manufacturer.....: WEABANDICTION CO., LTD.

Address: L19-05 of Ronghu Square, Phase IV, Ronghu, 408 Pingji Avenue,
Fuchengao Community, Pinghu Street, Longgang District,
Shenzhen, Guangdong,CN(518111)

Model/Type reference: BE-2404

General disclaimer:

The test results presented in this report relate only to the object tested.

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Copy of marking plate:

Product name: Baby Hearing Protection Earmuffs

Standard: EN 352-1: 2020

Model: BE-2404

WEABANDICTION CO., LTD.



General remarks:

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"(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.

General product information:

This product is a Baby Hearing Protection Earmuffs with model BE-2404.

The minimum sound attenuation for this product is 22dB, so recommended for only use in an environment with noise 90dB max. for this product.

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Clause	Requirement + test	Result - Remark	Verdict
4	Requirements	See below	P
4.1	Sizing Earmuffs shall be classified into three size ranges: — 'medium size range' if their adjustability complies with 4.3.2.2 a) and 4.3.2.2 b), as appropriate; — 'small size range' if their adjustability complies with 4.3.2.3 a) and 4.3.2.3 b), as appropriate; — 'large size range' if their adjustability complies with 4.3.2.4 a) and 4.3.2.4 b), as appropriate. 'Small size range' and 'large size range' earmuffs shall be accompanied by the user information specified in Clause 6 k).	Complied	P
4.2	Materials and construction	Complied	P
4.2.1	Materials	Complied	P
4.2.1.1	Those parts of the earmuffs that come into contact with the skin shall be non-staining, soft and pliable.		P
4.2.1.2	Those parts of the earmuffs that come into contact with the skin shall not be likely to cause skin irritation, allergic reaction or have any other adverse effect on health.		P
4.2.1.3	All materials shall be visibly unimpaired after cleaning and disinfection by the methods specified by the manufacturer.		P
4.2.2	Construction	Complied	P
4.2.2.1	All parts of the earmuffs shall be finished smooth and be free from sharp edges that could cause excessive irritation or injuries.		P
4.2.2.2	Earmuffs whose cushions and/or liners are intended by the manufacturer to be replaced by the user shall not require the use of tools for this purpose.		P
4.2.2.3	All universal earmuffs that have a mass in excess of 150 g shall be provided with a headstrap.		P
4.2.2.4	Earmuffs that are suitable for wearing only in the behind-the-head or under-the-chin modes, and that have a mass in excess of 150 g, shall be provided with a headstrap.		P
4.3	Performance		P
4.3.1	General The requirements of 4.3.2 to 4.3.12 shall be satisfied. Earmuffs shall be conditioned and tested in accordance with EN 13819-1:2020, 4.1.1, 4.1.2 and 4.1.3.		P
4.3.2	Sizing and adjustability		P

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Clause	Requirement + test	Result - Remark	Verdict
4.3.2.1	General Sizing and adjustability shall be tested in accordance with EN 13819-1:2020, 4.2 and the following requirements satisfied, as appropriate. In the case of earmuffs incorporating a means to adjust the headband force, these requirements shall be satisfied at both the maximum and the minimum force setting.	Complied	P
4.3.2.2	'Medium size range' earmuffs a) over-the-head and under-the-chin earmuffs For each of the combinations of test dimensions shown by the letter M in EN 13819-1:2020, Table 1, the range of adjustment of the cups/headband and of the width between the cushions shall enable the earmuffs to be fitted to the fixture. b) behind-the-head earmuffs For each of the combinations of test dimensions shown by the letter M in EN 13819-1:2020, Table 2, the range of adjustment of the cups/headband and of the width between the cushions shall enable the earmuffs to be fitted to the fixture.	Complied	P
4.3.2.3	'Small size range' earmuffs a) over-the-head and under-the-chin earmuffs For each of the combinations of test dimensions shown by the letter S in EN 13819-1:2020, Table 1, the range of adjustment of the cups/headband and of the width between the cushions shall enable the earmuffs to be fitted to the fixture. b) behind-the-head earmuffs For each of the combinations of test dimensions shown by the letter S in EN 13819-1:2020, Table 2, the range of adjustment of the cups/headband and of the width between the cushions shall enable the earmuffs to be fitted to the fixture.	Complied	P
4.3.2.4	'Large size range' earmuffs a) over-the-head and under-the-chin earmuffs For each of the combinations of test dimensions shown by the letter L in EN 13819-1:2020, Table 1, the range of adjustment of the cups/headband and of the width between the cushions shall enable the earmuffs to be fitted to the fixture. b) behind-the-head earmuffs For each of the combinations of test dimensions shown by the letter L in EN 13819-1:2020, Table 2, the range of adjustment of the cups/headband and of the width between the cushions shall enable the earmuffs to be fitted to the fixture.	Complied	P

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Clause	Requirement + test	Result - Remark	Verdict
4.3.3	Cup rotation When tested in accordance with EN 13819-1:2020, 4.3, the contact between the cushions and the plates of the fixture shall be continuous insofar as it provides an unbroken barrier between the inside and outside perimeter of the cushions.	Complied	P
4.3.4	Headband force When tested in accordance with EN 13819-1:2020, 4.4, the headband force of each specimen shall not be greater than 14 N. In the case of earmuffs incorporating means to adjust this force, it shall be possible to adjust the force to 14 N or less. For universal earmuffs tests shall be performed for all wearing modes.	Complied	P
4.3.5	Cushion pressure When tested in accordance with EN 13819-1:2020, 4.5, the cushion pressure of each specimen shall be not greater than 4 500 Pa. For earmuffs incorporating means to adjust the headband force, this requirement shall apply to the maximum force setting or 14 N, whichever is the lower.		P
4.3.6	Resistance to damage when dropped Unless 4.3.7 is to be satisfied, the earmuffs (except for replaceable cushions) shall remain intact and fully functional as a passive hearing protection when tested in accordance with EN 13819-1:2020, 4.6. Neither shall any part of the earmuffs become detached, such that correct reassembly requires the use of either a tool or a replacement part.	Complied	P
4.3.7	Resistance to damage when dropped at low temperature (optional) When tested in accordance with EN 13819-1:2020, 4.7, the earmuffs (except for replaceable cushions) shall remain intact and fully functional as a passive hearing protection. Neither shall any part of the earmuffs become detached, such that correct reassembly requires the use of either a tool or a replacement part. If the requirements of this subclause are met, the information shall be supplied to the user with the earmuffs according to Clause 6 f), as appropriate.	Complied	P

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Clause	Requirement + test	Result - Remark	Verdict
4.3.8	Change in headband force (including optional water immersion with headband under stress) The headband force of each specimen shall not change by more than $\pm 15\%$ from that reported according to 4.3.4 after the earmuffs have been subjected to the appropriate conditioning and tests specified in EN 13819-1:2020, 4.1.3.7 a) to i). If the headband force according to 4.3.4 was measured for more than one size adjustment, the $\pm 15\%$ limit shall apply only to the size adjustment which gave the highest initial force. The comparison between the results before and after conditioning shall be performed for the headband force of each specimen separately. Additionally, and in all cases, the final headband force of each specimen shall not exceed 14 N. For universal earmuffs the test shall be performed in the over-the-head wearing mode only. If the test according to EN 13819-1:2020, 4.11, (headband under stress) has been done and the requirements of 4.3.8 of this document are met, the information according to Clause 6 e) shall be supplied to the user with the earmuffs.	Complied	P
4.3.9	Insertion loss The standard deviations reported in accordance with EN 13819-2:2020, 4.1 shall not be greater than 4,0 dB in four or more adjacent one-third-octave-bands, and not greater than 7,0 dB in any individual one-third-octave-band. This criterion may be applied separately to left and right cups designed to show different attenuation. In that case information shall be supplied to the user with the earmuffs according to Clause 6 h).	Complied	P
4.3.10	Resistance to leakage In the case of fluid filled cushions, they shall not leak when the earmuffs are tested in accordance with EN 13819-1:2020, 4.12.		P
4.3.11	Ignitability When tested in accordance with EN 13819-1:2020, 4.13, no part of the earmuffs shall ignite upon application of the heated rod nor continue to glow after removal of the heated rod.	Complied, flame-resistant materials used.	P



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Clause	Requirement + test	Result - Remark	Verdict						
4.3.12	Minimum sound attenuation When tested in accordance with EN 13819-2:2020, 4.2, the H-, M- and L-values (calculated according to EN ISO 4869-2 for $\alpha = 1$) of the earmuffs shall be not less than the values given in Table 1. In addition, the APV f98 octave band values (calculated according to EN ISO 4869-2:2018 for $\alpha = 2$) shall be equal to or greater than 0, rounded to the nearest integer value for all test frequencies from 125 Hz to 8 000 Hz. Table 1 — HML minimum sound attenuation requirement <table><tr><td>H</td><td>M</td><td>L</td></tr><tr><td>12</td><td>11</td><td>9</td></tr></table>	H	M	L	12	11	9	Complied, the H, M, L value is Min. 22 for the minimum sound attenuation test.	P
H	M	L							
12	11	9							
5	Marking The earmuffs shall carry the following information:	Complied	P						
a)	in the case of earmuffs intended by the manufacturer to be worn in a particular orientation, an indication of the FRONT and/or TOP of the cups, and/or an indication of the LEFT and RIGHT cup; The earmuffs or the packaging shall carry the following information:	Complied	P						
b)	the number of this European Standard series, i.e. the generic mark “EN 352”; NOTE 1 A product can also meet other parts of the EN 352 series simultaneously.	Complied	P						
c)	manufacturing date or date of obsolescence indicating month and year. EXAMPLE A possible format is mm/yyyy. NOTE 2 Where manufacturing date is provided refer to 6 d).		P						
	Marking shall be durable. NOTE 3 Additional marking is required by Regulation (EU) 2016/425 such as name, trade mark or other information of the manufacturer, model designation and batch number. NOTE 4 Markings on the product can be designed so that they can be accessed, understood and used by the widest range of users (for more guidance see DIN Technical Report 124:2002, CEN ISO/TR 22411:2011 and CEN/CLC Guide 6).		P						

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Clause	Requirement + test	Result - Remark	Verdict
6	User information The following information for the user shall be supplied with the earmuffs (as appropriate). The warning statements are not required to be verbatim but shall address the fundamental points explicitly. NOTE 1 User information for the product can be written so that it can be accessed, understood and used by the widest range of users (for more guidance see DIN Technical Report 124:2002, CEN ISO/TR 22411:2011 and CEN/CLC Guide 6).	Complied	P
a)	the number of this European standard, i.e. EN 352-1:2020;	Complied	P
b)	the name, trade mark or other means of identification of the manufacturer;		P
c)	the model designation;		P
d)	the lifetime of the product (from manufacturing to obsolescence), if only manufacturing date is provided according to Clause 5 c);	Complied	P
e)	where appropriate the statement: "These earmuffs have satisfied the requirements of the stress test under water at +50 °C.";		P
f)	where appropriate the statement: "These earmuffs have satisfied the requirements of the drop test at -20 °C.";		P
g)	materials of the headband (see 3.1.5) and of the cushions (see 3.1.3);		P
h)	in case that the two cups of the earmuffs are intended to provide different sound attenuation, an indication of the cup showing lower sound attenuation and a statement specifying the special purpose of this product together with full implication on user safety resulting from the asymmetrical design of the hearing protector, e.g. the inability to hear warning signals and important sounds, problems with localization of sound sources, implications for users with monolateral hearing loss;	Complied	P
i)	method of fitting/adjustment, including instructions regarding the setting of any means to adjust the headband force;	Complied	P
j)	the size range(s) of the earmuffs for each mode of use, as determined in 4.3.2, on both the packaging/box and in the user information;	Complied	P



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Clause	Requirement + test	Result - Remark	Verdict
k)	where the product does not meet the 'medium size range', the following statement: 1) On packaging/box: "Warning: Small size range or large size range (as appropriate) earmuffs. Refer to user information." NOTE 2 Packaging is the smallest quantity commercially available. 2) In user information: "Warning: These earmuffs are of 'small size range' or 'large size range' (as appropriate). Earmuffs complying with EN 352-1 are of 'medium size range', 'small size range' or 'large size range'. 'Medium size range' earmuffs will fit the majority of users. 'Small size range' or 'large size range' earmuffs are designed to fit users for whom 'medium size range' earmuffs are not suitable."	Complied	P
l)	for each mode of use (as defined in 3.1.6), the following sound attenuation values: 1) On packaging/box H-, M- and L-values in accordance with EN ISO 4869-2:2018 with the parameter $\alpha = 1$; 2) In user information i) mean value and standard deviation at each test frequency; ii) APV-value at each test frequency in accordance with EN ISO 4869-2:2018 with the parameter $\alpha = 1$; iii) H-, M- and L-values in accordance with EN ISO 4869-2:2018 with the parameter $\alpha = 1$; iv) SNR-value in accordance with EN ISO 4869-2:2018 with the parameter $\alpha = 1$; v) the mean values H_m, M_m and L_m calculated in accordance with EN ISO 4869-2:2018 and the corresponding standard deviations H_s, M_s and L_s; vi) the mean value SNR m calculated in accordance with EN ISO 4869-2:2018 and the corresponding standard deviation SNR s. Each set of values shall be given equal prominence.	Complied	P
m)	recommendation that the user should ensure that: 1) the earmuffs are fitted, adjusted and maintained in accordance with the manufacturer's instructions; 2) the earmuffs are worn at all times in noisy surroundings; 3) the earmuffs are regularly inspected for serviceability;	Complied	P

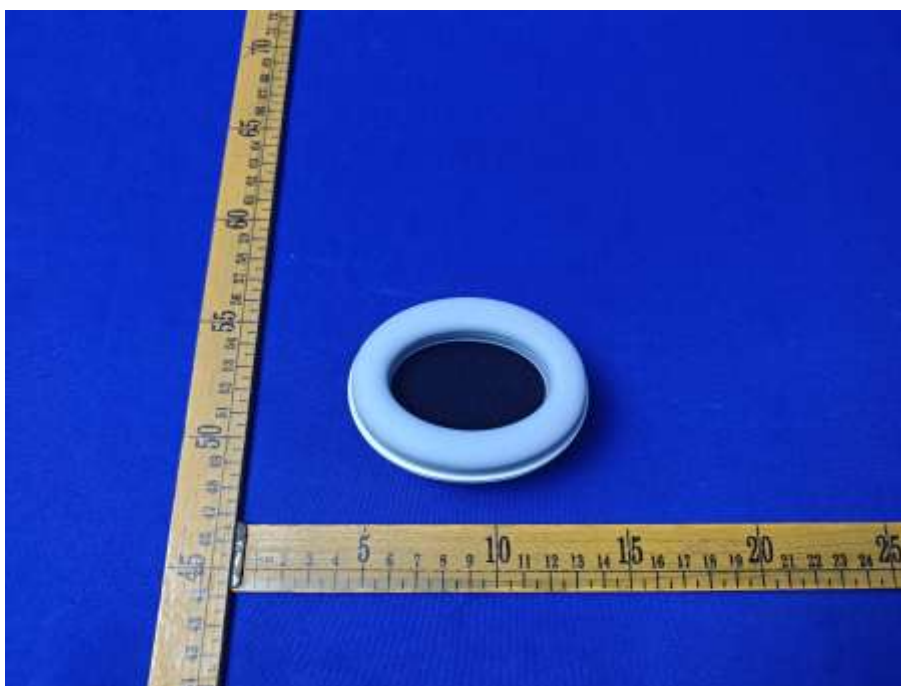
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Clause	Requirement + test	Result - Remark	Verdict
n)	a warning that, if the recommendations given in 6 m) are not adhered to, the protection afforded by the earmuffs will be severely impaired;	Complied	P
o)	methods of cleaning and disinfection, which shall specify, and require the use of, agents that are not known to be harmful to the user;	Complied	P
p)	a statement: "The product may be adversely affected by certain chemical substances. Refer to the manufacturer for further information.";		P
q)	a statement that earmuffs, and in particular cushions, may deteriorate with use and should be examined at frequent intervals for cracking and leakage, for example;	Complied	P
r)	a statement that the fitting of hygiene covers to the cushions may affect the acoustic performance of the earmuffs;		P
s)	recommended storage conditions before and after use;	Complied	P
t)	the designation/reference and other information required when ordering replacement cushions;		P
u)	if appropriate, the method of cushion replacement;	Complied	P
v)	the mean mass of the earmuffs to the nearest gram.		P
	NOTE 3 Additional user information content is required by Regulation (EU) 2016/425.		P



Photo





***** End of Report *****