

ivm Test Report

On the Conformity of Lighters with EN 13869 (2016) for child-resistance

Test Object

Electronic Gas Lighter XHD-8590

alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)

Customer

Publik d.o.o., Valjevo, Serbia



ivm Institut Verpackungsmarktforschung GmbH
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1 Introductory Note

This test report confirms the conformity of lighters with **EN 13869** to child resistance.

The test report has been prepared by

ivm Institut Verpackungsmarktforschung GmbH
Friedrich-Seele-Straße 20
38122 Braunschweig
Germany.

ivm is accredited in accordance with ISO/IEC 17025 as a testing laboratory by the German Accreditation Body (DAkKS) and registered under No.: D-PL-14061-01-00.

The child panel test with lighters based on the standardized procedure according to **EN 13869 (2016)**.

This test report describes the test procedure and the test results in accordance with the requirements of the above-mentioned standard in the chapter 4.

The test results and the confirmation of conformity with the standard only apply to the tested lighter in unchanged form, defined by dimensions, weight, volume, material, specifications, etc., amendments are valid only if made in writing. The agreements signed between the customer and **ivm** in this context are binding.

Additional information that was obtained during the test procedure but is not part of the test results is documented separately. A summary is given in the chapter "Brief Test Report".

The test report documents and attachments may be published only in unchanged form. Excerpts may not be published without the permission of **ivm**. All records of the test process are stored at **ivm** and may be inspected by authorized persons upon request.

2 Test Report – General

2.1 Tested Lighter

In accordance with EN 13869, the previous test results are also valid for the lighter “HEET Item No. 22.080.XX (WHERE XX=00-99)” used from Publik d.o.o., Valjevo, Serbia and are part of this report.

2.2 Manufacturer / Supplier

The lighters were made available by:

Publik d.o.o.
Vladike Nikolaja 469
14 000 Valjevo
Serbia

2.3 Test Period

The lighter has been tested in September and October 2018 by children.

2.4 Test and Supervisory Personnel

The child tests were conducted by trained **ivm** testers Petra Becker, Britta Schebesta, Susanne Porzelt, Bettina Heming and Stefanie Pflugmacher in Braunschweig and its environs.

The tests were organized and supervised by Stephanie Georg, Head of **ivm** test laboratory.

2.5 Description of the Tested Lighter Model

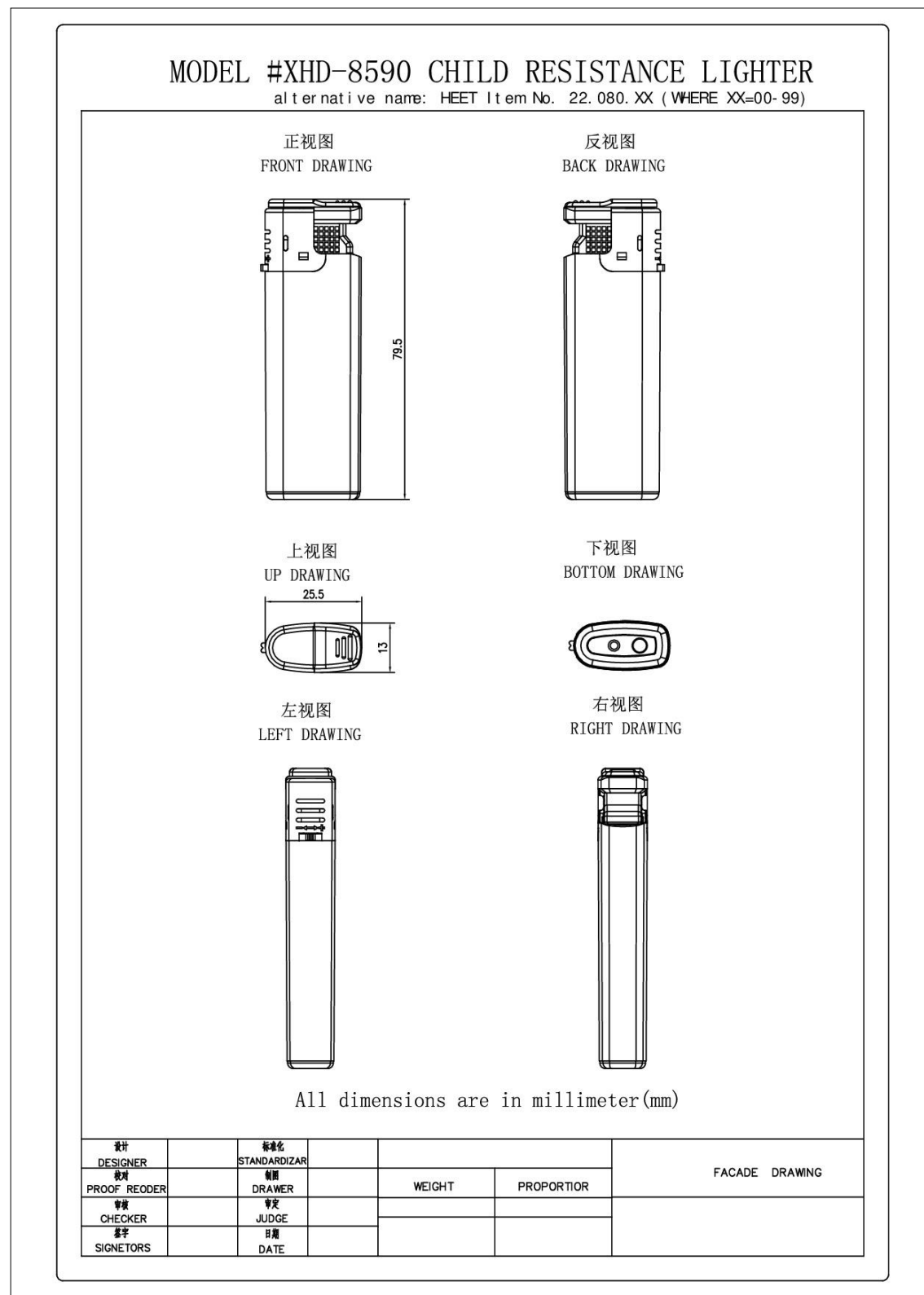
The tested lighters are refillable gas lighters with a push swing piezo ignition mechanism. The dimensions of the lighters are height: 79.5 mm, width: 25.5 mm and depth: 13.0 mm. The weight of the filled lighter is approx. 19.46 grams, while the empty lighter has a weight of approx. 17.9 grams. Additional technical drawings and technical documentation of the lighters will be shown on the following pages.

The measurement of the average vertical force to operate has been done only with the piezo unit from six randomly selected samples of the lighter (see technical data sheet page 10). The child-resistant function is achieved by an operating force of 3.60 kg or more on average to use the ignition mechanism. The minimum operating force is 3.33 kg.

The documents listed as follows describe the tested lighter and were provided by the customer. Technical drawings and material specifications (chapter 2.5.1) and photos taken by **ivm** (chapter 2.5.2) are used for identification.

The continuous production of the lighter is regularly checked by the customer and his suppliers for compliance with the features documented here. The validity of the test results and compliance with the requirements of the test standard can only be assumed if the lighters produced matches the features documented here.

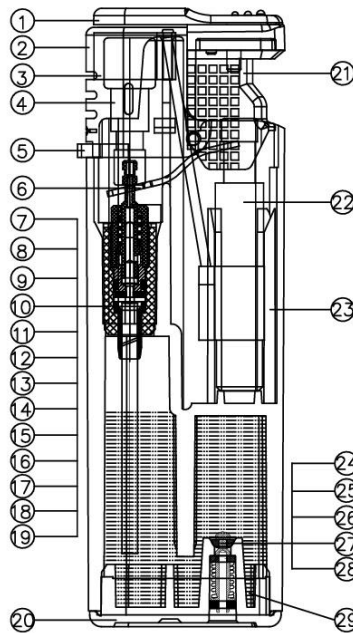
2.5.1 Material Description and Dimensions



构成图(CUT VIEW)

型号(MODEL NO): XHD-8590

alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)



NO	部品名	材料
1	盖板(COVER PLATE)	增强阻燃PBT
2	风罩(CAP)	马口铁
3	隔热圈(HEAT INSULATION RING)	胶木
4	汽化炉(BURNER ASSY)	
5	调火环(ADJUST RING)	ABS
6	撬板(LEVER)	马口铁
7	螺帽(HOUSING)	POM
8	小O环(SMALL O RING)	橡胶
9	出气弹簧(NOZZLE SPRING)	碳素钢丝
10	T型胶钉(T-PACKING)	橡胶
11	铜座(NOZZLE BOTTOM)	黄铜HP59-1
12	铜针(NOZZLE)	黄铜HP59-1
13	大O环(LARGE O RING)	橡胶
14	螺帽套体(SCREW HOLDER)	AS
15	海绵(SPONGE FILTER)	聚氨酯
16	铝钉(ZINC NAIL)	锌合金
17	锌套(WICK LID)	锌合金
18	吸杆(WICK)	HDPE
19	锌套O环(O RING)	橡胶
20	底座(BOTTOM)	AS
21	按钮(KNOB)	ABS
22	压电(PIEZO)	
23	油箱(TANK)	AS
24	碗形垫片(R-PACKING)	橡胶
25	小垫片(SMALL P-PACKING)	橡胶
26	铜针(NOZZLE)	黄铜HP59-1
27	进气弹簧(VAIVE SPRING)	碳素钢丝
28	大垫片(LARGE P-PACKING)	橡胶
29		

长*宽*高: 25.5mm*13mm*75.5mm

整机重量(100%气量时): 19.74±0.1 g

整机重量(85%气量时): 19.46±0.1 g

气量75%: 1.40 g

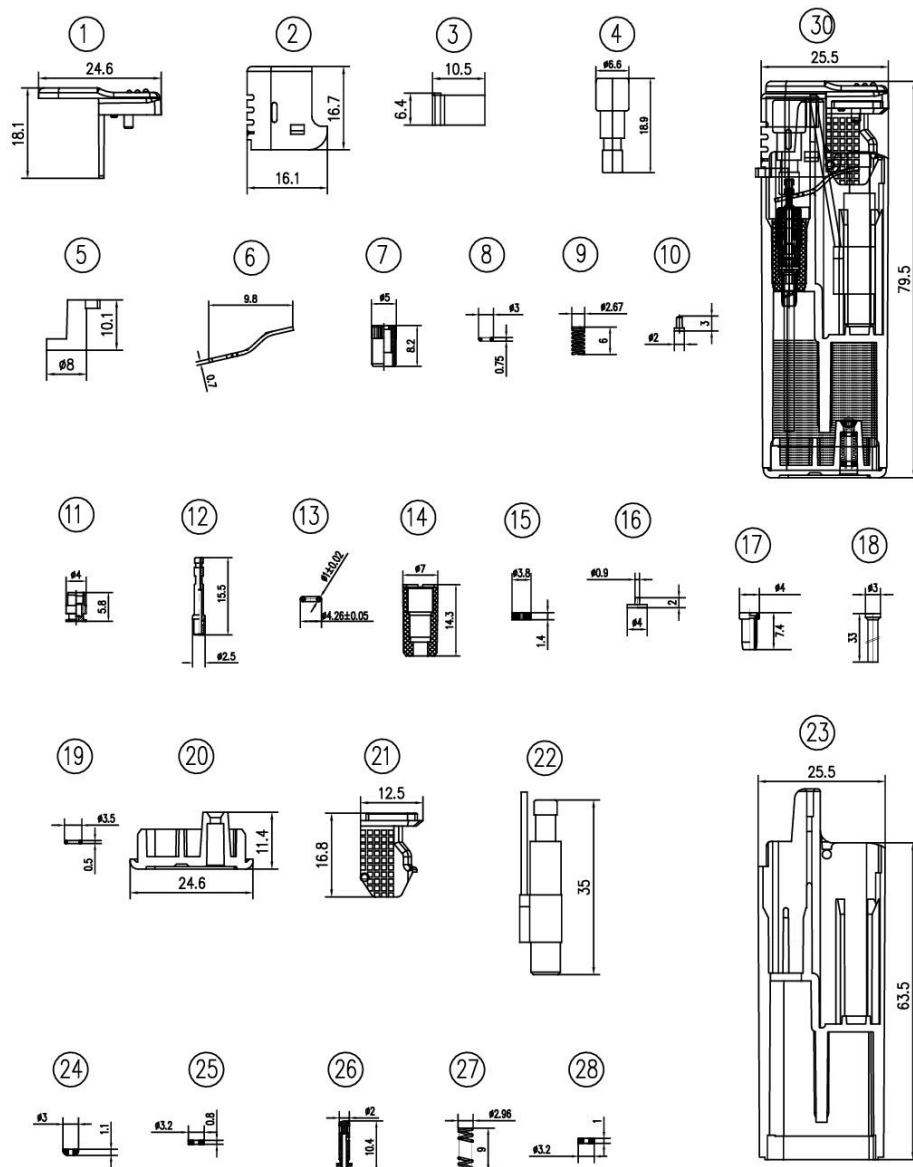
气量85%: 1.58 g

				材料:	XINHAI 新海科技集团有限公司	
				文件路径:		
序号	主要更改描述	签名	日期	文件编号:	产品图号	XHD8890
设计		批准		mm	产品名称	构成图
审核		日期		比例 3:2 版本 A1	表面处理	

XINHAI-A4(210X297)

MODEL #XHD-8590 SPECIFICATIONS

alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)



设计 DESIGNER		标准化 STANDARDIZAR		WEIGHT	PROPORTION	PART DRAWING
校对 PROOF READER		制图 DRAWER				
审核 CHECKER		审定 JUDGE				
签字 SIGNETORS		日期 DATE				

MODEL #XHD-8590 SPECIFICATIONS

alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)

NO	名称(NAME)	重量(WEIGHT)/g	规格(SPECS)/mm
01	盖板(CORER PLATE)	1.06±0.01	18.1*24.6
02	风罩(CAP)	1.66±0.01	16.1*16.7
03	隔热圈(HEAT INSULATION RING)	0.24±0.01	6.4*10.5
04	汽化炉(BURNER ASSY)	1.1±0.01	Ø6.5*18.9
05	调火环(ADJUST RING)	0.187±0.001	Ø8*10.1
06	撬板(LEVER)	0.36±0.01	0.7*9.8
07	螺帽(HOUSING)	0.11±0.01	Ø5*8.2
08	小O环(SMALL O RING)	0.004±0.001	Ø3*0.75
09	出气弹簧(NOZZLE SPRING)	0.05±0.01	Ø2.67*6
10	T型胶钉(T-PACKING)	0.005±0.001	Ø2*3
11	铜座(NOZZLE BOTTOM)	0.31±0.01	Ø4*5.8
12	铜针(NOZZLE)	0.22±0.01	Ø2.5*15.5
13	大O环(LARGE O RING)	0.01±0.001	Ø4.26*1
14	螺帽套体(SCREW HOLDER)	0.32±0.01	Ø7*14.3
15	海绵(SPONGE FILTER)	0.003±0.001	Ø3.8*1.4
16	铝钉(ZINC NAIL)	0.02±0.01	Ø4*2
17	锌套(WICK LID)	0.14±0.01	Ø4*7.4
18	吸杆(WICK)	0.06±0.001	Ø3*33
19	锌套O环(O RING)	0.002±0.001	Ø3.5*0.5
20	底盖(BOTTOM)	1.21±0.01	24.6*11.4
21	撒手(KNOB)	0.63±0.01	16.8*12.5
22	压电(PIEZO)	2.81±0.01	6.2*35
23	油槽(TANK)	7.89±0.01	25.5*63.5
24	碗形垫片(R-PACKING)	0.006±0.001	Ø3*1.1
25	小垫片(SMALL P-PACKING)	0.007±0.001	Ø3.2*0.8
26	铜针(NOZZLE)	0.16±0.01	Ø2*10.4
27	进气弹簧(VAIVE SPRING)	0.06±0.01	Ø2.96*9
28	大垫片(LARGE P-PACKING)	0.008±0.001	Ø3.2*1
29	丁烷气(GAS)	1.58±0.01	
30	成品(GROSS MACHINE)	19.46±0.1	25.5*13*79.5

设计 DESIGNER	标准化 STANDARDIZAR	WEIGHT	PROPORTIOR	PART LIST
校对 PROOF READER	制图 DRAWER			
审核 CHECKER	审校 JUDGE			
签字 SIGNETORS	日期 DATE			

Technical Data Sheet			
Test Object:			
Electronic Gas Lighter XHD 8590			
alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)			
(79.5 mm x 25.5 mm x 13.0 mm)			
Test Parameter:			
Average vertical force to operate the lighter model No. (in kg)			
Lighter No.	Average force to operate (in kg)		
Lighter No.1	3.48 kg		
Lighter No.2	3.58 kg		
Lighter No.3	3.33 kg		
Lighter No.4	3.83 kg		
Lighter No.5	3.63 kg		
Lighter No.6	3.73 kg		
Average force total	3.60 kg		

2.5.2 Pictures



ivm Report No. 23863960224 - 13869
Publik d.o.o., Valjevo, Serbia
Electronic Gas Lighter XHD-8590
alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)



2.6 Test Procedure

2.6.1 Type of Test

The test was carried out in accordance with **EN 13869** and comprised of: Two tests with children (one before and one after demonstration).

2.6.2 Test Instruction as defined in EN 13869

Test with Children:

1. To begin the test, the tester shall say: *"I have a special lighter that will not make a flame. It makes a noise like this"*.

Except where doing so would block the child's view of a visual signal, the tester shall place a A4 format (21.0 x 29.7 cm) sheet of cardboard or other rigid opaque material upright on the table in front of the surrogate lighter, so that the surrogate lighter cannot be seen by the child, and shall operate the surrogate lighter once to produce its signal.

The tester shall say: *"your parents (or other guardian, if applicable) said it is okay for you to try to make that noise with your lighter"*. The tester shall place a surrogate lighter in each child's hand and say: *"now you try to make a noise with your lighter. Keep trying until I tell you to stop"*.

2. The tester shall observe the children for 5 min to determine if either or both of the children can successfully operate the surrogate lighter by producing one signal of any duration. If a child achieves a spark without defeating the child-resistant feature, say: *"that is a spark; it will not hurt you; try to make the noise with your lighter"*. If any child successfully operates the surrogate lighter during this period, the surrogate lighter shall be taken from that child and the child shall not be asked to try to operate the lighter again. The tester shall ask the successful child to remain until the other child is finished.
3. If either or both of the children are unable to successfully operate the surrogate lighter during the 5 min period specified in 2., the tester shall demonstrate the operation of the surrogate lighter.

To conduct the demonstration, secure the children's full attention by saying: *"okay, give me your lighters now"*.

Take the lighters and place them on the table in front of you out of the children's reach.

Then say: *"I will show you how to make the noise with your lighters. First I will show you with (child's name)'s lighter and then I will show you with (child's name)'s lighter"*.

Pick up the first child's lighter. Hold the lighter approximately 60 cm front of the children at their eye level, Hold the lighter in a vertical position in one hand with the child-resistant feature exposed (not covered by fingers, thumb, etc...). Orient the child-resistant mechanism on the lighter toward the children.

NOTE This can require a change in your orientation to the children such as sitting sideways in the chair to allow a normal hand position for holding the lighter while assuring that both children have a clear view of the mechanism. You can also need to reposition your chair so your hand is centred between the children.

Say: "*now watch the lighter*". Look at each child to verify that they are looking at the lighter. Operate the lighter one time in a normal manner according to the manufacturer's instructions. Do not exaggerate operating movements. Do not verbally describe the lighter's operation.

Place the first child's lighter back on the table in front of you and pick up the second child's lighter. Say: "*okay, now watch this lighter*". Repeat the demonstration as described above using the second child's lighter.

Testers shall be trained to conduct the demonstration in a uniform manner, including the words spoken to the children, the way the lighter is held and operated, and how the tester's hand and body is oriented to the children.

All testers shall be able to operate the surrogate lighters using only appropriate operating movements in accordance with the manufacturer's instructions.

If any of these requirements are not met during the demonstration for any pair of children, the results for that pair of children shall be eliminated from the test. Another pair of eligible children shall be used to complete the test panel.

4. Each child who fails to successfully operate the surrogate lighter in the first 5 min is then given another 5 min in which to attempt the successful operation of the surrogate lighter.

After the demonstrations give their original lighters back to the children by placing a lighter in each child's hand. Say: "*okay, now you try to make the noise with your lighters. Keep trying until I tell you to stop*".

If any child successfully operates the surrogate during this period, the surrogate lighter shall be taken from that child and the child shall not be asked to try to operate the lighter again. The tester shall ask the successful child to remain until the other child is finished.

5. At the end of the second 5 min test period, take the surrogate lighter from any child who has not successfully operated it.
6. After the test is over, ask the children to stand next to you. Look at the children's faces and say: "these are special lighters that do not make fire. Real lighters can burn you. Will you both promise me that you will never try to work a real lighter? Wait for an affirmative response from each child; then thank the children for helping.

7. Escort the children out of the room used for testing.
8. After a child has participated in the testing of a surrogate lighter and on the same day, provide written notice of the fact to the child's parent or guardian. This notification can be in the form of a letter provided to the school to be given to the parents or guardian of each child. The notification shall state that the child participated, shall ask the parent or guardian to warn the child not to play with lighters and shall remind the parent or guardian to keep all lighters and matches, whether child resistant or not, out of the reach of children.
9. For children who operated the surrogate lighter, the notification shall state that the child was able to operate the child-resistant lighter. For children who do not defeat the child-resistant feature, the notification shall state that, although the child did not defeat the child-resistant feature, the child may be able to do so in the future.

2.7 Surrogate Lighter

According to the provisions of child resistant lighters, surrogate lighters have to be used during the test, fulfilling the following requirements:

The surrogate lighter is a device that

- approximates to the appearance, size, shape and weight of, and is identical in all other factors that affect child-resistance (including operation and the force(s) required for operation), within reasonable manufacturing tolerances, to a lighter intended for use by consumers;
- has no fuel;
- does not produce a flame; and
- produces an audible or visual signal that will be clearly discernible when the surrogate lighter is activated in a manner that would normally produce a flame in a production lighter.

This does not require a lighter to be modified with electronics or the like to produce a signal. Producers can use as a surrogate lighter a production lighter but without fuel, if a distinct signal such as a "click" can be heard clearly when the mechanism is operated in each manner that would produce a flame in a production lighter.

The surrogate lighter used in this test fulfilled all these requirements.

3 Safety Requirements

3.1 Safety Requirements as defined in EN 13869

EN 13869 lists the following safety requirements for lighters:

- Lighters shall comply with EN ISO 9994.
- No lighter shall be a novelty lighter.
- Lighters shall be resistant to successful operation by at least 85 % of the child test panel when tested.
- The mechanism or system of a lighter that makes the product resist successful operation by children shall:
 - reset itself automatically after each operation of the ignition mechanism of the lighter;
 - not impair safe operation of the lighter when used in a normal and convenient manner;
 - be effective for the reasonably expected life of the lighter; and
 - not be easily overridden or deactivated.

The manufacturer of the lighter guarantees that all these requirements are fulfilled or will be fulfilled by the time the product will be available on the market. Should any of these requirements not be fulfilled by that time, this certification will also cease to be valid.

4 Test Report

4.1 Test with Children

4.1.1 Test Requirements as defined in EN 13869

The tests were carried out with 100 children aged 42 up to and including 51 months. According to EN 13869 30 % of the children were aged 42–44, 40 % were aged 45–48 and 30 % 49–51 months. The surrogate lighters were used. The testers checked each lighter for proper functioning.

The following was documented in the test records:

- Test locations, date and tester,
- Number, name (first name only for data protection reason), age in months and gender of the participating children,
- Number, of the children who succeeded in operating the lighter before and after demonstration (successful or unsuccessful operation attempts) and, if applicable, method and duration,
- Evaluation of test results in per cent (successful / unsuccessful operation)
- Elapsed time at which a child achieved a successful operation.

4.1.2 Test Preparations and Test Procedure

The child tests were conducted in Braunschweig and its surroundings. The locations and social facilities chosen for the tests had been suitably prepared in advance and provided with detailed information.

The Head of test laboratory certified the test procedure, the number of children that took part in the tests as well as the total testing time. This certification serves as proof of the correctness of the test. In addition, each tester was audited and the results recorded by the testers were checked for plausibility. Customer approved Informed Consent Forms for parental adults were used and retained.

The original records are kept at **ivm** and may be inspected by authorized persons upon request.

The children were chosen with regard to having a test group that is as representative as possible. To meet this requirement, the tests were made in various locations in the city of Braunschweig and its rural vicinity. The social facilities that took part in the tests were run either by the church or independent institutions.

It was checked prior to the tests that the children were healthy, judging by appearances, and that their manual skills were not impaired. When selecting the children, the testers also made sure that no participant had taken part in more than one test in the course of the last 12 months.

The tests were made in surroundings that were familiar to the children. The children were tested in pairs, and care was taken to ensure that the children would not disturb each other. They were repeatedly requested to keep trying hard to operate the lighter. Tips on how to operate the lighter were not given. Where adults were in the room together with the children, the testers made sure that they did not influence the children in any manner. Their presence was documented in the records.

The children were given five minutes to try to operate the lighter. They were allowed to use any method they could think of. Tools or other aids were not made available. If a child succeeded in operating the lighter, he or she remained in the room until the end of test.

After five minutes, the children that were unsuccessful in operating the lighter were given a practical demonstration of the procedure, but received no verbal explanation. Again, the children had five minutes to try to operate the lighter.

4.1.3 Results of Tests with Children

The results of the tested lighter **Electronic Gas Lighter XHD-8590 / alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)** were entered in the test sheets.

Results:

0 (zero) successful operations were registered in the first 5-minutes test (before demonstration). In the full 10-minutes test, 1 (one) successful operation was registered. This corresponds to a percentage of 0.0 % before demonstration and a total percentage of 1.0 %.

The results are within the tolerance range of the EN 13869 (2016).

Child Test Conclusion: The lighter does comply with the child test requirements of Standard EN 13869 (2016).

ivm	Institut VerpackungsMarktforschung								
	Friedrich Seele Str. 20, 38122 Braunschweig								
Childtest									
ivm No.:	23863960224				Object:	Electronic Gas Lighter XHD-8590 / alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)			
Location			Date		No.	Tester			Remarks
Kiga Steterburg, Salzgitter			25.09.2018		1-11	Petra Becker			
Städt.Kita Vienenburg			26.09.2018		12-28	Britta Schebesta			
Markus, Salzgitter			27.09.2018		29-35	Petra Becker			
Christian-Friedrich-Krull, Braunschweig			05.10.2018		36-51	Susanne Porzelt			
Elisabeth, Salzgitter			08.10.2018		52-53	Petra Becker			
Kita Kinderbahnhof, Hannover			15.10.2018		54-65	Bettina Heming			
Kita Assewind, Wittmar			16.10.2018		66-73	Bettina Heming			
Kiga Schapen			16.10.2018		74-82	Stefanie Pflugmacher			
Kita Löwenzahn Goslar			17.10.2018		83-85	Britta Schebesta			
Christuskirche, Braunschweig			18.10.2018		86-89	Susanne Porzelt			
Weltentdecker Schandelah			19.10.2018		90-100	Stefanie Pflugmacher			
A					Test before Demonstration		Test after Demonstration		
No.	Name	Age/Months	female	male	not operated	operated	not operated	operated	Remarks
1	Sina	44	1	0	1	0	1	0	
2	Medina	43	1	0	1	0	1	0	
3	Collin	42	0	1	1	0	1	0	
4	Mevanur	51	1	0	1	0	1	0	
5	Philipp	51	0	1	1	0	1	0	
6	Sebastian	49	0	1	1	0	1	0	
7	Bruno	44	0	1	1	0	1	0	
8	Niko	42	0	1	1	0	1	0	
9	Linus	42	0	1	1	0	1	0	
10	Jannis	49	0	1	1	0	1	0	
11	Esila	51	1	0	1	0	1	0	
12	Annika	43	1	0	1	0	1	0	
13	Lea	44	1	0	1	0	1	0	
14	Ben	42	0	1	1	0	1	0	
15	Yannik	42	0	1	1	0	1	0	
16	Jonas	43	0	1	1	0	1	0	
17	Damon	43	0	1	1	0	1	0	
18	Thalia	46	1	0	1	0	1	0	
19	Aimee	47	1	0	1	0	1	0	
20	Hamza	48	0	1	1	0	1	0	
21	Lennart	45	0	1	1	0	1	0	
22	Robin	45	0	1	1	0	1	0	
23	Anni	50	1	0	1	0	1	0	
24	Laura	49	1	0	1	0	1	0	
25	Thies	50	0	1	1	0	1	0	
26	Jack	50	0	1	1	0	1	0	
27	Louis	50	0	1	1	0	1	0	
28	Max	49	0	1	1	0	1	0	
29	Jona	47	0	1	1	0	1	0	
30	Adam	48	0	1	1	0	1	0	
31	Anna	46	1	0	1	0	1	0	
32	Luca	51	0	1	1	0	1	0	
33	Hayat	47	1	0	1	0	1	0	
34	Dejman	47	0	1	1	0	1	0	
35	Betül	46	1	0	1	0	1	0	
36	Ranim	51	1	0	1	0	1	0	
37	Samuel	48	0	1	1	0	1	0	
38	Georg	43	0	1	1	0	1	0	
39	Sarin	47	1	0	1	0	1	0	
40	Adrian	49	0	1	1	0	1	0	
41	Safiah	44	1	0	1	0	1	0	
42	Sadi	50	0	1	1	0	1	0	
43	Abdullah	46	0	1	1	0	1	0	
44	Enzo	48	0	1	1	0	1	0	
45	Ilyas	50	0	1	1	0	1	0	
46	Merve	50	1	0	1	0	1	0	
47	Emily	46	1	0	1	0	1	0	
48	Hiba	46	1	0	1	0	1	0	
49	Kheman	49	0	1	1	0	1	0	
50	Taha	46	0	1	1	0	1	0	

ivm	Institut Verpackungsmarktforschung								
	Friedrich Seele Str. 20, 38122 Braunschweig								
Childtest									
ivm No.:	23863960224				Object:	Electronic Gas Lighter XHD-8590 / alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)			
Location		Date		No.	Tester			Remarks	
Kiga Steterburg, Salzgitter		25.09.2018		1-11	Petra Becker				
Städt.Kita Vienenburg		26.09.2018		12-28	Britta Schebesta				
Markus, Salzgitter		27.09.2018		29-35	Petra Becker				
Christian-Friedrich-Krull, Braunschweig		05.10.2018		36-51	Susanne Porzelt				
Elisabeth, Salzgitter		08.10.2018		52-53	Petra Becker				
Kita Kinderbahnhof, Hannover		15.10.2018		54-65	Bettina Heming				
Kita Assewind, Wittmar		16.10.2018		66-73	Bettina Heming				
Kiga Schapen		16.10.2018		74-82	Stefanie Pflugmacher				
Kita Löwenzahn Goslar		17.10.2018		83-85	Britta Schebesta				
Christuskirche, Braunschweig		18.10.2018		86-89	Susanne Porzelt				
Weltentdecker Schandelah		19.10.2018		90-100	Stefanie Pflugmacher				
A					Test before Demonstration		Test after Demonstration		
No.	Name	Age/Months	female	male	not operated	operated	not operated	operated	Remarks
51	Colin	47	0	1	1	0	1	0	
52	Patrik	46	0	1	1	0	1	0	
53	Justin	45	0	1	1	0	1	0	
54	Luna	42	1	0	1	0	1	0	
55	Amelie	43	1	0	1	0	1	0	
56	Merle	49	1	0	1	0	1	0	
57	Lars	42	0	1	1	0	1	0	
58	Andrei	42	0	1	1	0	1	0	
59	Maximilian	49	0	1	1	0	1	0	
60	Chiara	49	1	0	1	0	1	0	
61	Miguel	50	0	1	1	0	0	1	
62	Simon	50	0	1	1	0	1	0	
63	Marie	46	1	0	1	0	1	0	
64	Theo	48	0	1	1	0	1	0	
65	Oskar	51	0	1	1	0	1	0	
66	Yuna	45	1	0	1	0	1	0	
67	Moritz	46	0	1	1	0	1	0	
68	Oliver	48	0	1	1	0	1	0	
69	Finn	43	0	1	1	0	1	0	
70	Niklas	43	0	1	1	0	1	0	
71	Lea	46	1	0	1	0	1	0	
72	Elias	45	0	1	1	0	1	0	
73	Mika	45	0	1	1	0	1	0	
74	Elin	48	1	0	1	0	1	0	
75	Eny	46	1	0	1	0	1	0	
76	Svea	50	1	0	1	0	1	0	
77	Hannah	51	1	0	1	0	1	0	
78	Christian	42	0	1	1	0	1	0	
79	Joe	42	0	1	1	0	1	0	
80	Max	43	0	1	1	0	1	0	
81	Julius	48	0	1	1	0	1	0	
82	Hanna	44	1	0	1	0	1	0	
83	Jaron	46	0	1	1	0	1	0	
84	Finn	48	0	1	1	0	1	0	
85	Klara	46	1	0	1	0	1	0	
86	Nesrin	44	1	0	1	0	1	0	
87	Efe	42	0	1	1	0	1	0	
88	Lennox	44	0	1	1	0	1	0	
89	Livio	42	0	1	1	0	1	0	
90	Henri	48	0	1	1	0	1	0	
91	Timo	51	0	1	1	0	1	0	
92	Amelie	47	1	0	1	0	1	0	
93	Keno	48	0	1	1	0	1	0	
94	Selma	42	1	0	1	0	1	0	
95	Marlon	51	0	1	1	0	1	0	
96	Finn	46	0	1	1	0	1	0	
97	Bakir	42	0	1	1	0	1	0	
98	Adrian	48	0	1	1	0	1	0	
99	Matthes	50	0	1	1	0	1	0	
100	Lukas	49	0	1	1	0	1	0	
Σ / Ø	-	46.5	35	65	100	0	99	1	

Object: Electronic Gas Lighter XHD-8590 / alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)						
1. Operations						
A	female			male		
age in months	number of children	operations 5-minutes-test	operations 10-minutes-test	number of children	operations 5-minutes-test	operations 10-minutes-test
42 - 44	10 10.0 %	0 0.0 %	0 0.0 %	20 20.0 %	0 0.0 %	0 0.0 %
45 - 48	15 15.0 %	0 0.0 %	0 0.0 %	25 25.0 %	0 0.0 %	0 0.0 %
49 - 51	10 10.0 %	0 0.0 %	0 0.0 %	20 20.0 %	0 0.0 %	1 1.0 %
Σ	35 35.0 %	0 0.0 %	0 0.0 %	65 65.0 %	0 0.0 %	1 1.0 %
2. Mean operating times and standard deviation						
5-minutes-test - Average: N/A; Standard deviation: N/A						
10-minutes-test - Average: 312 s; Standard deviation: N/A						
3. Percentage of lighters tested at each location						
Kiga Steterburg, Salzgitter: 11.0%						
Städt.Kita Vienenburg: 17.0%						
Markus, Salzgitter: 7.0%						
Christian-Friedrich-Krull, Braunschweig: 16.0%						
Elisabeth, Salzgitter: 2.0%						
Kita Kinderbahnhof, Hannover: 12.0%						
Kita Assewind, Wittmar: 8.0%						
Kiga Schapen: 9.0%						
Kita Löwenzahn Goslar: 3.0%						
Christuskirche, Braunschweig: 4.0%						
Weltentdecker Schandelah: 11.0%						
4. Percentage of lighters tested by each tester						
Petra Becker: 20.0%						
Britta Schebesta: 20.0%						
Susanne Porzelt: 20.0%						
Bettina Heming: 20.0%						
Stefanie Pflugmacher: 20.0%						
5. Child-Resistant Effectiveness						
5-minutes-test: 100.0%						
10-minutes-test: 99.0%						

Results of tests with children

4.2 Overall Test Result

ivm Test Report No.: **23863960224 – 13869**

Tested lighter: Electronic Gas Lighter XHD-8590 / alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)

The result of CR testing is that the provided lighter meets the requirement of EN 13869 (2016).

The lighter Electronic Gas Lighter XHD-8590 / alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99) can be denoted as child-resistant.

The evaluation of the lighters proves that all requirements of the standard for child-resistant packaging are fulfilled.

These results only apply to the tested lighters provided as samples and mentioned above.

5 Confirmation of Conformity

This confirms that the tested lighter Electronic Gas Lighter XHD-8590 / alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99) meets the requirements of the standard EN 13869 (2016) for child-resistant lighters.

Braunschweig, 03.04.2024



Signed: Stephanie Georg, Head of test laboratory

6 Creation Notes

process	done by	date
Preparation of the report	Stephanie Georg	08.03.2024
Confirmation of conformity	Stephanie Georg	08.03.2024
Review & approval	Stephanie Simone	03.04.2024

7 Declaration of compliance

According to EN 13869, a declaration of compliance (e.g.: certificate) shall accompany each shipping unit of the product (for example, a case), or otherwise be furnished to any distributor or retailer to whom the product is sold or delivered by the producer.

The declaration shall state:

- a) that the product complies with the European Standard EN 13869;
- b) the name and address of the producer;
- c) the period(s) of time, not to exceed 31 days, during which the lighters were manufactured; and
- d) the address of the place of manufacture, if different from the address in b).

8 Product marking

The standard also states that the producer shall label each lighter with the following information, which may be in code:

- a) an identification of the period of time, not to exceed 31 days, during which the lighter was manufactured; and
- b) an identification of the producer of the lighter, unless the lighter bears a private label. If the lighter bears a private label, it shall bear a code mark or other label which will permit the seller of the lighter to identify the manufacturer upon request.

9 Brief Test Report

1. Test Institute

ivm Institut Verpackungsmarktforschung GmbH
Friedrich-Seele-Straße 20
38122 Braunschweig, Germany

2. Manufacturers/Suppliers of the Tested Lighter

Publik d.o.o., Valjevo, Serbia

3. Tested Lighter

Electronic Gas Lighter XHD-8590
alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99)

4. Test Period

The tests were performed in September and October 2018.

5. Test Standard

Testing of lighters according to EN 13869 (2016) for child-resistance.

6. Test Persons

100 children aged 42–51 months

7. Results of Test with Children

5-minutes test: 0 successful operations, 10-minutes test: 1 successful operation

8. Confirmation of Conformity

This confirms that the tested lighter Electronic Gas Lighter XHD-8590 / alternative name: HEET Item No. 22.080.XX (WHERE XX=00-99) meets the requirements of the standard EN 13869 (2016) on child-resistant lighters.

ivm Test Report No.: 23863960224 – 13869

This confirmation only applies to the tested lighters provided as samples and mentioned above. This confirmation on conformity is valid as long as no modifications are made to the lighter (e.g. its data specifications of dimensions, material, weight and the child-resistant feature).

Braunschweig, 03.04.2024

ivm Institut Verpackungsmarktforschung GmbH



Stephanie Georg
Head of test laboratory



End of test report No. 23863960224 – 13869.