



## **TEST REPORT**

### **39-14654/T3**

**Product:** Gas lighters

**Type designation** CP11R

**Customer:** FLAMAGAS S.A.  
Metalurgia 38-42 2nd floor  
08038, Barcelona  
Spain

**Manufacturer:** FLAMAGAS S.A.  
Metalurgia 38-42 2nd floor  
08038, Barcelona  
Spain

**Manufacturing plant:** Flamagas Llinars SL  
Horts de la Mina, s/n  
Llinars del Vallés  
08450, Barcelona  
Spain

**Employee responsible:** Ing. Ondřej Borkovec

**Report issue date:** 2020-06-30

**Distribution list:** 1 copy to the Engineering Test Institute (SZU)  
1 copy to the Customer

The tests were performed based on these documents:

- Order B-69159 of 2020-02-25 (Order reg. no. D-69159 delivered on 2020-02-26)
- Contract B-69159/39 of 2020-02-28

## I. Description of product tested

CLIPPER Lighter type CP11R (purple) is non-adjustable, reusable, pocket lighter.

### Technical specification:

Type designation	Fuel	Ignition	Flame height control	The possibility of refuelling
CMP11R	Gas to refillable lighters	Flint with sparkwheel	No	Yes

## II. Sample tested

Reg. No. SZÚ	Product	Date of submission
1 to 100 (a, b, c, d, e, f, g, h, i)	CP11R (purple)	3/2020

The sample a is composed by lighters: 1, 2, 3, 4, 5 and 6.

The sample b is composed by lighters: 7, 8, 9, 10, 11 and 12.

The sample c is composed by lighters: 13, 14, 15, 16, 17, 18, 19 and 20.

The sample d is composed by lighters: 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 and 36.

The sample e is composed by lighters: 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51 and 52.

The sample f is composed by lighters: 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67 and 68.

The sample g is composed by lighters: 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79 and 80.

The sample h is composed by lighters: 81, 82, 83, 84, 85, 86, 87 and 88.

The sample i is composed by lighters: 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99 and 100

### Photo documentation



CLIPPER Lighter type CP11R (purple)

The visual inspection, tests and verification were carried out by Bc. Jan Hnilica of Heat Equipment Test Station, at SZU in Brno:

The tests were carried out with the use of validly calibrated measuring and test equipment.

### III. Measuring and test equipment

No.	Description	Inventory number	Calibration valid until	Calibration Sheet
1.	Barometer	022320/5	12/2020	111652/2018
2.	Digital thermometer and hygrometer	117040	2/2023	1087F-18
3.	Stopwatch	990760	11/2022	3434E-17
4.	Steel meter	ME 450	03/2022	1908/2017
5.	Thermometer Therm 2285-2	021764	04/2022	KL-T-0034-19
6.	Analytical scale Sartorius	021458	4/2021	16/KA-19
7.	Temperature cabinet	022132	-	-
8.	Freeze box	022330	-	-

The stated extended measurement uncertainties are calculated as a factor of the measurement uncertainty and the extension coefficient,  $k=2$ , corresponding to the coverage certainty of 95% as regards standard classification. The uncertainties do not reflect the impact of sample taking and lack of homogeneity. The standard uncertainty was determined in accordance with Document EA4/02.

#### IV. Methods, results of tests and verifications

No.	Name and specification	Used technical standard	Test method	Page	Evaluation
		ČSN EN ISO 9994:2019			
1.	Test of Flame generation	Art. 4.1	Art. 4.1	5	+
2.	Test of Flame heights	Art. 4.2	Art. 6.2	6	+
3.	Test of Flame-heights adjustment	Art. 4.3	Art. 4.3	7	+
4.	Test of Resistance to spitting or sputtering and flaring	Art. 4.4	Art. 6.3	8	+
5.	Test of Flame extinction	Art. 4.5	Art. 6.4	9	+
6.	Test of Volumetric displacement and fuel weight	Art. 4.6, 4.7	Art. 6.7, 4.7	10	+
7.	Test of Resistance to fuel loss	Art. 5.3	Art. 6.6	11	+
8.	Test of Burning behaviour	Art. 5.7	Art. 5.7	11	+
9.	Test of Resistance to internal pressure	Art 5.6	Art. 6.10	12	+
10.	Test of Compatibility with fuel	Art. 5.2	Art. 6.5	12 - 13	+
11.	Test of Resistance to dropping	Art. 5.4	Art 6.8	14 - 16	+
12.	Test of Resistance to elevated temperatures	Art. 5.5	Art. 6.9	17 - 18	+
13.	Test of Resistance to cyclic burning	Art. 5.8	Art. 6.11	18 - 19	+
14.	Test of Resistance to continuous burning	Art. 5.9	Art 6.12	20	+

**Evaluation:**

**+** Requirement fulfilled  
**-** Requirement not fulfilled  
**X** Not evaluated  
**0** Not applicable

<b>Subject of test:</b>	<b>Test of Flame generation</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	13 to 100
<b>Date of testing:</b>	5/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 4.1
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	4.1 a)	4.1 b)	4.1 c)
13	+	+	X
14	+	+	X
15	+	+	X
16	+	+	X
17	+	+	X
18	+	+	X
19	+	+	X
20	+	+	X
21	+	+	X
22	+	+	X
23	+	+	X
24	+	+	X
25	+	+	X
26	+	+	X
27	+	+	X
28	+	+	X
29	+	+	X
30	+	+	X
31	+	+	X
32	+	+	X
33	+	+	X
34	+	+	X
35	+	+	X
36	+	+	X
37	+	+	X
38	+	+	X
39	+	+	X
40	+	+	X
41	+	+	X
42	+	+	X
43	+	+	X
44	+	+	X
45	+	+	X
46	+	+	X
47	+	+	X
48	+	+	X
49	+	+	X
50	+	+	X
51	+	+	X
52	+	+	X
53	+	+	X
54	+	+	X
55	+	+	X
56	+	+	X

Sample	4.1 a)	4.1 b)	4.1 c)
57	+	+	X
58	+	+	X
59	+	+	X
60	+	+	X
61	+	+	X
62	+	+	X
63	+	+	X
64	+	+	X
65	+	+	X
66	+	+	X
67	+	+	X
68	+	+	X
69	+	+	X
70	+	+	X
71	+	+	X
72	+	+	X
73	+	+	X
74	+	+	X
75	+	+	X
76	+	+	X
77	+	+	X
78	+	+	X
79	+	+	X
80	+	+	X
81	+	+	X
82	+	+	X
83	+	+	X
84	+	+	X
85	+	+	X
86	+	+	X
87	+	+	X
88	+	+	X
89	+	+	X
90	+	+	X
91	+	+	X
92	+	+	X
93	+	+	X
94	+	+	X
95	+	+	X
96	+	+	X
97	+	+	X
98	+	+	X
99	+	+	X
100	+	+	X

**Evaluation:**

+ Requirement fulfilled  
 - Requirement not fulfilled  
 X Not evaluated  
 0 Not applicable

<b>Subject of test:</b>	<b>Test of Flame heights</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	13 to 100
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.2
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	4.2.1.2	4.2.2.3	4.2.2.7
13	+	x	x
14	+	x	x
15	+	x	x
16	+	x	x
17	+	x	x
18	+	x	x
19	+	x	x
20	+	x	x
21	+	x	x
22	+	x	x
23	+	x	x
24	+	x	x
25	+	x	x
26	+	x	x
27	+	x	x
28	+	x	x
29	+	x	x
30	+	x	x
31	+	x	x
32	+	x	x
33	+	x	x
34	+	x	x
35	+	x	x
36	+	x	x
37	+	x	x
38	+	x	x
39	+	x	x
40	+	x	x
41	+	x	x
42	+	x	x
43	+	x	x
44	+	x	x
45	+	x	x
46	+	x	x
47	+	x	x
48	+	x	x
49	+	x	x
50	+	x	x
51	+	x	x
52	+	x	x
53	+	x	x
54	+	x	x
55	+	x	x
56	+	x	x

Sample	4.2.1.2	4.2.2.3	4.2.2.7
57	+	x	x
58	+	x	x
59	+	x	x
60	+	x	x
61	+	x	x
62	+	x	x
63	+	x	x
64	+	x	x
65	+	x	x
66	+	x	x
67	+	x	x
68	+	x	x
69	+	x	x
70	+	x	x
71	+	x	x
72	+	x	x
73	+	x	x
74	+	x	x
75	+	x	x
76	+	x	x
77	+	x	x
78	+	x	x
79	+	x	x
80	+	x	x
81	+	x	x
82	+	x	x
83	+	x	x
84	+	x	x
85	+	x	x
86	+	x	x
87	+	x	x
88	+	x	x
89	+	x	x
90	+	x	x
91	+	x	x
92	+	x	x
93	+	x	x
94	+	x	x
95	+	x	x
96	+	x	x
97	+	x	x
98	+	x	x
99	+	x	x
100	+	x	x

**Evaluation:**

+ Requirement fulfilled  
 - Requirement not fulfilled  
 X Not evaluated  
 0 Not applicable

<b>Subject of test:</b>	<b>Test of Flame-heights adjustment</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	13 to 100
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 4.3
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	4.3.1	4.3.2	4.3.3	4.3.4	4.3.5
13	x	x	x	x	x
14	x	x	x	x	x
15	x	x	x	x	x
16	x	x	x	x	x
17	x	x	x	x	x
18	x	x	x	x	x
19	x	x	x	x	x
20	x	x	x	x	x
21	x	x	x	x	x
22	x	x	x	x	x
23	x	x	x	x	x
24	x	x	x	x	x
25	x	x	x	x	x
26	x	x	x	x	x
27	x	x	x	x	x
28	x	x	x	x	x
29	x	x	x	x	x
30	x	x	x	x	x
31	x	x	x	x	x
32	x	x	x	x	x
33	x	x	x	x	x
34	x	x	x	x	x
35	x	x	x	x	x
36	x	x	x	x	x
37	x	x	x	x	x
38	x	x	x	x	x
39	x	x	x	x	x
40	x	x	x	x	x
41	x	x	x	x	x
42	x	x	x	x	x
43	x	x	x	x	x
44	x	x	x	x	x
45	x	x	x	x	x
46	x	x	x	x	x
47	x	x	x	x	x
48	x	x	x	x	x
49	x	x	x	x	x
50	x	x	x	x	x
51	x	x	x	x	x
52	x	x	x	x	x
53	x	x	x	x	x
54	x	x	x	x	x
55	x	x	x	x	x
56	x	x	x	x	x

Sample	4.3.1	4.3.2	4.3.3	4.3.4	4.3.5
57	x	x	x	x	x
58	x	x	x	x	x
59	x	x	x	x	x
60	x	x	x	x	x
61	x	x	x	x	x
62	x	x	x	x	x
63	x	x	x	x	x
64	x	x	x	x	x
65	x	x	x	x	x
66	x	x	x	x	x
67	x	x	x	x	x
68	x	x	x	x	x
69	x	x	x	x	x
70	x	x	x	x	x
71	x	x	x	x	x
72	x	x	x	x	x
73	x	x	x	x	x
74	x	x	x	x	x
75	x	x	x	x	x
76	x	x	x	x	x
77	x	x	x	x	x
78	x	x	x	x	x
79	x	x	x	x	x
80	x	x	x	x	x
81	x	x	x	x	x
82	x	x	x	x	x
83	x	x	x	x	x
84	x	x	x	x	x
85	x	x	x	x	x
86	x	x	x	x	x
87	x	x	x	x	x
88	x	x	x	x	x
89	x	x	x	x	x
90	x	x	x	x	x
91	x	x	x	x	x
92	x	x	x	x	x
93	x	x	x	x	x
94	x	x	x	x	x
95	x	x	x	x	x
96	x	x	x	x	x
97	x	x	x	x	x
98	x	x	x	x	x
99	x	x	x	x	x
100	x	x	x	x	x

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable

<b>Subject of test:</b>	<b>Test of Resistance to spitting or sputtering and flaring</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	13 to 100
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.3
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	6.3.2.3	6.3.2.	6.3.2.12
13	+	+	+
14	+	+	+
15	+	+	+
16	+	+	+
17	+	+	+
18	+	+	+
19	+	+	+
20	+	+	+
21	+	+	+
22	+	+	+
23	+	+	+
24	+	+	+
25	+	+	+
26	+	+	+
27	+	+	+
28	+	+	+
29	+	+	+
30	+	+	+
31	+	+	+
32	+	+	+
33	+	+	+
34	+	+	+
35	+	+	+
36	+	+	+
37	+	+	+
38	+	+	+
39	+	+	+
40	+	+	+
41	+	+	+
42	+	+	+
43	+	+	+
44	+	+	+
45	+	+	+
46	+	+	+
47	+	+	+
48	+	+	+
49	+	+	+
50	+	+	+
51	+	+	+
52	+	+	+
53	+	+	+
54	+	+	+
55	+	+	+
56	+	+	+

Sample	6.3.2.3	6.3.2.	6.3.2.12
57	+	+	+
58	+	+	+
59	+	+	+
60	+	+	+
61	+	+	+
62	+	+	+
63	+	+	+
64	+	+	+
65	+	+	+
66	+	+	+
67	+	+	+
68	+	+	+
69	+	+	+
70	+	+	+
71	+	+	+
72	+	+	+
73	+	+	+
74	+	+	+
75	+	+	+
76	+	+	+
77	+	+	+
78	+	+	+
79	+	+	+
80	+	+	+
81	+	+	+
82	+	+	+
83	+	+	+
84	+	+	+
85	+	+	+
86	+	+	+
87	+	+	+
88	+	+	+
89	+	+	+
90	+	+	+
91	+	+	+
92	+	+	+
93	+	+	+
94	+	+	+
95	+	+	+
96	+	+	+
97	+	+	+
98	+	+	+
99	+	+	+
100	+	+	+

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable



<b>Subject of test:</b>	<b>Test of Flame extinction</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	13 to 100
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.4
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	6.4
13	+
14	+
15	+
16	+
17	+
18	+
19	+
20	+
21	+
22	+
23	+
24	+
25	+
26	+
27	+
28	+
29	+
30	+
31	+
32	+
33	+
34	+
35	+
36	+
37	+
38	+
39	+
40	+
41	+
42	+
43	+
44	+
45	+
46	+
47	+
48	+
49	+
50	+
51	+
52	+
53	+
54	+
55	+
56	+

Sample	6.4
57	+
58	+
59	+
60	+
61	+
62	+
63	+
64	+
65	+
66	+
67	+
68	+
69	+
70	+
71	+
72	+
73	+
74	+
75	+
76	+
77	+
78	+
79	+
80	+
81	+
82	+
83	+
84	+
85	+
86	+
87	+
88	+
89	+
90	+
91	+
92	+
93	+
94	+
95	+
96	+
97	+
98	+
99	+
100	+

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable

<b>Subject of test:</b>	<b>Test of Volumetric displacement and fuel weight</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	a
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.7 and 4.7
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample 1 to 6	m1	m2	m3	V <sub>1</sub>	m4	m5	m6	V <sub>0</sub>	V <sub>1</sub> /V <sub>0</sub> (limit max 0,85)	4.7	Test acc. to 6.7
1	16,1143	12,3209	3,7934	6,746221	12,2926	20,2663	7,9737	7,993364	0,843977724	+	+
2	15,9501	12,3468	3,6033	6,408145	12,321	20,0656	7,7446	7,763699	0,825398482	+	+
3	16,1525	12,374	3,7785	6,719723	12,3477	20,2758	7,9281	7,947651	0,845497919	+	+
4	16,1159	12,3939	3,722	6,619242	12,3631	20,1721	7,809	7,828258	0,84555757	+	+
5	16,0615	12,3915	3,67	6,526765	12,357	20,1958	7,8388	7,858131	0,830574735	+	+
6	15,9457	12,3333	3,6124	6,424329	12,3004	20,0545	7,7541	7,773222	0,826469197	+	+

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable

**Note:**

- m1* [g] full lighter weight
  - m2* [g] empty lighter weight
  - m3* [g] fuel weight
  - m4* [g] empty lighter with hole
  - m5* [g] empty lighter with hole filled with water
  - m6* [g] water weight
  - V<sub>1</sub>* [cm<sup>3</sup>] volume of the liquid portion of the fuel
  - V<sub>0</sub>* [cm<sup>3</sup>] volume of the lighter reservoir
- Specific weight of the fuel [*q<sub>i</sub>*] is 0,56 g/cm<sup>3</sup>.

<b>Subject of test:</b>	<b>Test of Burning behaviour</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	b (7 to 9)
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 5.7
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	5.7.2
7	+
8	+
9	+

**Repeating test 4.1 to 4.5**

Sample	4.1 a)	4.1 b)	4.1 c)	4.2.1.2	4.2.2.3	4.2.2.	4.3.1	4.3.2	4.3.3
7	+	+	x	+	x	x	x	x	x
8	+	+	x	+	x	x	x	x	x
9	+	+	x	+	x	x	x	x	x

Sample	4.3.4	4.3.5	6.3.2.3	6.3.2.)	6.3.2.12	4.5 a)	4.5 b)1)	4.5.b)2)
7	x	x	+	+	+	+	x	x
8	x	x	+	+	+	+	x	x
9	x	x	+	+	+	+	x	x

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable

<b>Subject of test:</b>	<b>Test of Resistance to fuel loss</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	b (8 to 12)
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.6
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	6.6	leakage max 15 mg/min
10	+	+
11	+	+
12	+	+

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable

<b>Subject of test:</b>	<b>Test of Resistance to internal pressure</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	c
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.10
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	6.10.4.3
13	+
14	+
15	+
16	+
17	+
18	+
19	+
20	+

**Evaluation:**

<b>+</b>	Requirement fulfilled
<b>-</b>	Requirement not fulfilled
<b>X</b>	Not evaluated
<b>0</b>	Not applicable

<b>Subject of test:</b>	<b>Test of Compatibility with fuel</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	d
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.6
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	Leakage after 28 days (limit max 15mg/min)	6.5.3.2.5
21	In limit	+
22	In limit	+
23	In limit	+
24	In limit	+
25	In limit	+
26	In limit	+
27	In limit	+
28	In limit	+
29	In limit	+
30	In limit	+
31	In limit	+
32	In limit	+
33	In limit	+
34	In limit	+
35	In limit	+
36	In limit	+

**Repeating test 4.1 to 4.5**

Sample	4.1 a)	4.1 b)	4.1 c)	4.2.1.2	4.2.2.3	4.2.2.7	4.3.1	4.3.2	4.3.3
21	+	+	x	+	x	x	x	x	x
22	+	+	x	+	x	x	x	x	x
23	+	+	x	+	x	x	x	x	x
24	+	+	x	+	x	x	x	x	x
25	+	+	x	+	x	x	x	x	x
26	+	+	x	+	x	x	x	x	x
27	+	+	x	+	x	x	x	x	x
28	+	+	x	+	x	x	x	x	x
29	+	+	x	+	x	x	x	x	x
30	+	+	x	+	x	x	x	x	x
31	+	+	x	+	x	x	x	x	x
32	+	+	x	+	x	x	x	x	x
33	+	+	x	+	x	x	x	x	x
34	+	+	x	+	x	x	x	x	x
35	+	+	x	+	x	x	x	x	x
36	+	+	x	+	x	x	x	x	x

Sample	4.3.4	4.3.5	6.3.2.3	6.3.2.7	6.3.2.12	4.5 a)	4.5 b)1)	4.5.b)2)
21	x	x	+	+	+	+	x	x
22	x	x	+	+	+	+	x	x
23	x	x	+	+	+	+	x	x
24	x	x	+	+	+	+	x	x
25	x	x	+	+	+	+	x	x
26	x	x	+	+	+	+	x	x
27	x	x	+	+	+	+	x	x
28	x	x	+	+	+	+	x	x
29	x	x	+	+	+	+	x	x
30	x	x	+	+	+	+	x	x
31	x	x	+	+	+	+	x	x
32	x	x	+	+	+	+	x	x
33	x	x	+	+	+	+	x	x
34	x	x	+	+	+	+	x	x
35	x	x	+	+	+	+	x	x
36	x	x	+	+	+	+	x	x

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable

<b>Subject of test:</b>	<b>Test of Resistance to dropping</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	e, f
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.8
<b>Measuring equipment used:</b>	See Table, Chapter III

The lighters stabilized at  $(23 \pm 2)$  °C for at least 10 h:

Sample	5.4.1 a)	5.4.1 b)	6.8.3.3.2	6.8.3.3.3	leakage max 15mg/min	6.8.3.4
37	+	+	+	+	0,00	it can be used for other tests
38	+	+	+	+	0,00	it can be used for other tests
39	+	+	+	+	0,00	it can be used for other tests
40	+	+	+	+	0,00	it can be used for other tests
41	+	+	+	+	0,00	it can be used for other tests
42	+	+	+	+	0,00	it can be used for other tests
43	+	+	+	+	0,00	it can be used for other tests
44	+	+	+	+	0,00	it can be used for other tests
45	+	+	+	+	0,00	it can be used for other tests
46	+	+	+	+	0,00	it can be used for other tests
47	+	+	+	+	0,00	it can be used for other tests
48	+	+	+	+	0,00	it can be used for other tests
49	+	+	+	+	0,00	it can be used for other tests
50	+	+	+	+	0,00	it can be used for other tests
51	+	+	+	+	0,00	it can be used for other tests
52	+	+	+	+	0,00	it can be used for other tests

Repeating test 4.1 to 4.5

Sample	4.1 a)	4.1 b)	4.1 c)	4.2.1.2	4.2.2.3	4.2.2.7	4.3.1	4.3.2	4.3.3
37	+	+	X	+	X	X	X	X	X
38	+	+	X	+	X	X	X	X	X
39	+	+	X	+	X	X	X	X	X
40	+	+	X	+	X	X	X	X	X
41	+	+	X	+	X	X	X	X	X
42	+	+	X	+	X	X	X	X	X
43	+	+	X	+	X	X	X	X	X
44	+	+	X	+	X	X	X	X	X
45	+	+	X	+	X	X	X	X	X
46	+	+	X	+	X	X	X	X	X
47	+	+	X	+	X	X	X	X	X
48	+	+	X	+	X	X	X	X	X
49	+	+	X	+	X	X	X	X	X
50	+	+	X	+	X	X	X	X	X
51	+	+	X	+	X	X	X	X	X
52	+	+	X	+	X	X	X	X	X

Sample	4.3.4	4.3.5	6.3.2.3	6.3.2.7	6.3.2.12	4.5 a)	4.5 b)1)	4.5.b)2)
37	X	X	+	+	+	+	X	X
38	X	X	+	+	+	+	X	X
39	X	X	+	+	+	+	X	X
40	X	X	+	+	+	+	X	X
41	X	X	+	+	+	+	X	X
42	X	X	+	+	+	+	X	X
43	X	X	+	+	+	+	X	X
44	X	X	+	+	+	+	X	X
45	X	X	+	+	+	+	X	X
46	X	X	+	+	+	+	X	X
47	X	X	+	+	+	+	X	X
48	X	X	+	+	+	+	X	X
49	X	X	+	+	+	+	X	X
50	X	X	+	+	+	+	X	X
51	X	X	+	+	+	+	X	X
52	X	X	+	+	+	+	X	X

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable

**The lighter maintained at a temperature of  $(- 10 \pm 2) ^\circ\text{C}$  for 24 h and then stabilized at a temperature of  $(23 \pm 2) ^\circ\text{C}$  for at least 10 h:**

Sample	5.4.1 a)	5.4.1 b)	6.8.3.3.2	6.8.3.3.3	leakage max 15mg/min	6.8.3.4
53	+	+	+	+	0,0000	it can be used for other tests
54	+	+	+	+	0,0000	it can be used for other tests
55	+	+	+	+	0,0000	it can be used for other tests
56	+	+	+	+	0,0000	it can be used for other tests
57	+	+	+	+	0,0000	it can be used for other tests
58	+	+	+	+	0,0000	it can be used for other tests
59	+	+	+	+	0,0000	it can be used for other tests
60	+	+	+	+	0,0000	it can be used for other tests
61	+	+	+	+	0,0000	it can be used for other tests
62	+	+	+	+	0,0000	it can be used for other tests
63	+	+	+	+	0,0000	it can be used for other tests
64	+	+	+	+	0,0000	it can be used for other tests
65	+	+	+	+	0,0000	it can be used for other tests
66	+	+	+	+	0,0000	it can be used for other tests
67	+	+	+	+	0,0000	it can be used for other tests
68	+	+	+	+	0,0000	it can be used for other tests

**Repeating test 4.1 to 4.5**

Sample	4.1 a)	4.1 b)	4.1 c)	4.2.1.2	4.2.2.3	4.2.2.7	4.3.1	4.3.2	4.3.3
53	+	+	x	+	x	x	x	x	x
54	+	+	x	+	x	x	x	x	x
55	+	+	x	+	x	x	x	x	x
56	+	+	x	+	x	x	x	x	x
57	+	+	x	+	x	x	x	x	x
58	+	+	x	+	x	x	x	x	x
59	+	+	x	+	x	x	x	x	x
60	+	+	x	+	x	x	x	x	x
61	+	+	x	+	x	x	x	x	x
62	+	+	x	+	x	x	x	x	x
63	+	+	x	+	x	x	x	x	x
64	+	+	x	+	x	x	x	x	x
65	+	+	x	+	x	x	x	x	x
66	+	+	x	+	x	x	x	x	x
67	+	+	x	+	x	x	x	x	x
68	+	+	x	+	x	x	x	x	x

Sample	4.3.4	4.3.5	6.3.2.3	6.3.2.7	6.3.2.12	4.5 a)	4.5 b)1)	4.5.b)2)
53	x	x	+	+	+	+	x	x
54	x	x	+	+	+	+	x	x
55	x	x	+	+	+	+	x	x
56	x	x	+	+	+	+	x	x
57	x	x	+	+	+	+	x	x
58	x	x	+	+	+	+	x	x
59	x	x	+	+	+	+	x	x
60	x	x	+	+	+	+	x	x
61	x	x	+	+	+	+	x	x
62	x	x	+	+	+	+	x	x
63	x	x	+	+	+	+	x	x
64	x	x	+	+	+	+	x	x
65	x	x	+	+	+	+	x	x
66	x	x	+	+	+	+	x	x
67	x	x	+	+	+	+	x	x
68	x	x	+	+	+	+	x	x

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable



<b>Subject of test:</b>	<b>Test of Resistance to elevated temperatures</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	g
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.9
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	Gas leakage limit max 15mg/min	6.9.3.6
69	0,0	+
70	0,0	+
71	0,0	+
72	0,0	+
73	0,0	+
74	0,0	+
75	0,0	+
76	0,0	+
77	0,0	+
78	0,0	+
79	0,0	+
80	0,0	+

**Repeating test 4.1 to 4.5**

Sample	4.1 a)	4.1 b)	4.1 c)	4.2.1.2	4.2.2.3	4.2.2.7	4.3.1	4.3.2	4.3.3
69	+	+	x	x	x	x	x	69	+
70	+	+	x	x	x	x	x	70	+
71	+	+	x	x	x	x	x	71	+
72	+	+	x	x	x	x	x	72	+
73	+	+	x	x	x	x	x	73	+
74	+	+	x	x	x	x	x	74	+
75	+	+	x	x	x	x	x	75	+
76	+	+	x	x	x	x	x	76	+
77	+	+	x	x	x	x	x	77	+
78	+	+	x	x	x	x	x	78	+
79	+	+	x	x	x	x	x	79	+
80	+	+	x	x	x	x	x	80	+

Sample	4.3.4	4.3.5	6.3.2.3	6.3.2.7	6.3.2.12	4.5 a)	4.5 b)1)	4.5.b)2)
69	x	x	+	+	+	+	x	x
70	x	x	+	+	+	+	x	x
71	x	x	+	+	+	+	x	x
72	x	x	+	+	+	+	x	x
73	x	x	+	+	+	+	x	x
74	x	x	+	+	+	+	x	x
75	x	x	+	+	+	+	x	x
76	x	x	+	+	+	+	x	x
77	x	x	+	+	+	+	x	x
78	x	x	+	+	+	+	x	x
79	x	x	+	+	+	+	x	x
80	x	x	+	+	+	+	x	x

**Evaluation:**

+	Requirement fulfilled
-	Requirement not fulfilled
X	Not evaluated
0	Not applicable

<b>Subject of test:</b>	<b>Test of Resistance to cyclic burning</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	h
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.11
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample	Number of cycles	Test acc. to 6.11.2.1.7
81	10	+
82	10	+
83	10	+
84	10	+
85	10	+
86	10	+
87	10	+
88	10	+

**Repeating test 4.1 to 4.5**

Sample	4.1 a)	4.1 b)	4.1 c)	4.2.1.2	4.2.2.3	4.2.2.7	4.3.1	4.3.2	4.3.3
81	+	+	X	+	X	X	X	X	X
82	+	+	X	+	X	X	X	X	X
83	+	+	X	+	X	X	X	X	X
84	+	+	X	+	X	X	X	X	X
85	+	+	X	+	X	X	X	X	X
86	+	+	X	+	X	X	X	X	X
87	+	+	X	+	X	X	X	X	X
88	+	+	X	+	X	X	X	X	X

Sample	4.3.4	4.3.5	6.3.2.3	6.3.2.7	6.3.2.12	4.5 a)	4.5 b)1)	4.5.b)2)
81	X	X	+	+	+	+	X	X
82	X	X	+	+	+	+	X	X
83	X	X	+	+	+	+	X	X
84	X	X	+	+	+	+	X	X
85	X	X	+	+	+	+	X	X
86	X	X	+	+	+	+	X	X
87	X	X	+	+	+	+	X	X
88	X	X	+	+	+	+	X	X

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable

<b>Subject of test:</b>	<b>Test of Resistance to continuous burning</b>
<b>Accredited test number:</b>	T 052*
<b>Sample designation:</b>	g
<b>Date of testing:</b>	05/2020
<b>Test method:</b>	ČSN EN ISO 9994:2019 Art. 6.12
<b>Measuring equipment used:</b>	See Table, Chapter III

Sample:	Test acc. to 6.12.3.1
89	+
90	+
91	+
92	+
93	+
94	+
95	+
96	+
97	+
98	+
99	+
100	+

**Evaluation:**

- +** Requirement fulfilled
- Requirement not fulfilled
- X** Not evaluated
- 0** Not applicable

**Tested by:**

Bc. Jan Hnilica		2020-06-30
----- Name	----- Signed	----- Date

**Reviewed by:**

Ing. Ondřej Borkovec		2020-06-30
----- Name	----- Signed	----- Date

**V. A list of other referenced documents**

- Order B-69159 of 2020-02-25 (Order reg. no. D-69159 delivered on 2020-02-26)
- Contract B-69159/39 of 2020-02-28
- Act 90/2016 Coll. on conformity assessment of specified products when made available on the market
- Regulation (EU) 2016/426 of the European Parliament and of the Council of 9 March 2016 on appliances burning gaseous fuels and repealing Directive 2009/142/EC
- ČSN EN ISO 9994:2019 Lighters – Safety specification

Test Report compiled by: Bc. Jan Hnilica

Test Report approved by:

**Mr. Milan Holomek**  
Head of Heat and Environment-Friendly  
Equipment Test Station

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