

Termoplam Ltd. Testing laboratory

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Republic of Bulgaria, Sofia,

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TEST REPORT Nº136/28.01.2020

on the compliance of Residential cookers fired by solid fuel: CONCEPT 2 AIR with the requirements of COMMISSION REGULATION (EU) 2015/1185 of 24 April 2015.

I. NAME SIGNATURE OF THE TESTED SAMPLE:

Residential cooker fired by solid fuel - wood model CONCEPT 2 AIR with total heat output 12 kW.

II. NAME DESCRIPTION OF THE TESTED SAMPLE:

Residential cooker model CONCEPT 2 AIR made of steel sheet metal by welding.

III. LEGAL DOCUMENT: COMMISSION REGULATION (EU) 2015/1185 of April 2015.



Picture of Residential cooker CONCEPT 2 AIR.

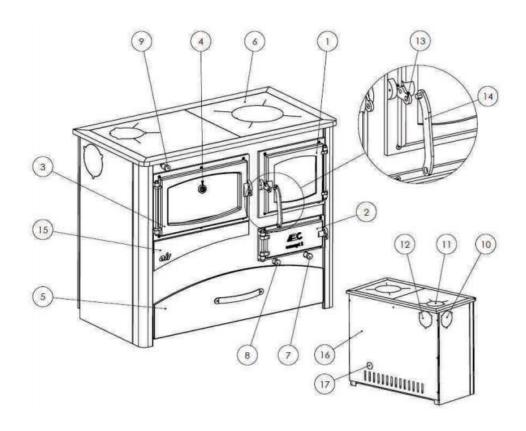
IV. QUANTITY OF THE TESTED SAMPLES: The Residential cooker model CONCEPT 2 AIR are randomly selected units of regular production of 1 each.

V. CUSTOMER:

ABC PROIZVOD d.o.o; Miloša Obrenovića 2; 31000 Užice; R. Serbia.

VI. PURPOSE OBJECT OF THE TASK: Evaluation the compliance of Residential cooker model CONCEPT 2 AIR with the requirements of REGULATION (EU) 2015/1185 of 24 April 2015.

VII. TECHNICAL FEATURES:



(SI. 1) Šporet Concept 2 Air- levi

Scheme of of Residential cooker CONCEPT 2 AIR (general).

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VIII. TEST CONDITIONS:

- 8.1. Working condition of the combustion device according to the requirements for tests at nominal output according to EN 12815:2001.
- 8.2. Processing of results calculate according to normal physical conditions at 13% O₂.
- 8.3. Used results of the Test Reports № 155-Tk/10.07.2014 of Laboratory testing and calibration "LIPGEI" Sofia.
- 8.4. Used results of the Test Reports Nº 594T.1 / 27.04.2018 of Laboratory testing and calibration "LIPGEI" Sofia
- 8.5. Used results of the Test Reports Nº 1936T.1/ 03.02.2020 of Laboratory testing and calibration "LIPGEI" Sofia.
- 8.6. Used results from the Test Report № 0244/16.07.2014 of TERMOTEST CONSULT LTD, Sofia.

IX. RESULTS AND OBSERVATIONS:

- 9.1. Seasonal space heating emissions:
- 9.1.1. Dust content of exhaust gases:
 - $PM^1 = 20 \text{ mg/Nm}^3 \le [PM] = 40 \text{ mg/Nm}^3 \text{ for CONCEPT 2 AIR;}$ [PM] = $40 \text{ mg/Nm}^3 \text{ in accordance with point 2 (a) (ii), of Annex II of the REGULATION (EU) 2015/1185.}$
- 9.1.2. CO of exhaust gases:
 - $-CO^{2} = 1 185 \text{ mg/Nm}^{3} \le [CO] = 1500 \text{ mg/Nm}^{3} \text{ for CONCEPT 2 AIR;}$
 - [CO] = 1500 mg/Nm³ in accordance with point 2 (c) (ii), of Annex II of the REGULATION (EU) 2015/1185.
- 9.1.3. OGC of exhaust gases:
 - OGC³ = 46 mg/Nm³ ≤ [OGC] = 120 mg/Nm³ for CONCEPT 2 AIR;
 - [OGC] = 120 mg/Nm³ in accordance with point 2 (b) (i), of Annex II of the REGULATION (EU) 2015/1185.
- 9.1.4. NO_x of exhaust gases:
 - $NO_x^3 = 155 \text{ mg/Nm}^3 \le [NO_x] = 200 \text{ mg/Nm}^3 \text{ for CONCEPT 2 AIR;}$
 - $[NO_x]$ = 200 mg/Nm³ in accordance with point 2 (d) (i), of Annex II of the REGULATION (EU) 2015/1185.
- Results from the Test Report № 155-Tk/10.07.2014 of Laboratory testing calibration "LIPGEI" Sofia.
- Results of the Test Reports № 594T.1 / 27.04.2018 of Laboratory testing and calibration "LIPGEI" Sofia
- Results from the Test Report № 1936T.1/ 03.02.2020 of Laboratory testing calibration "LIPGEI" Sofia.

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9.5. Seasonal space heating energy efficiency:

 $\eta_s = 68.2 \% > [\eta_s] = 65 \%$ for CONCEPT 2 AIR;

Where:

- η_s % the seasonal space heating energy efficiency in active mode is calculated as $\eta_{th,nom}$.
- $\eta_{th,nom}$ = 77,2 % for CONCEPT 2 AIR Test Report Nº 0244/16.07.2014 of TERMOTEST CONSULT LTD, Sofia.

Where:

- $\eta_{th,nom}$ % is the useful efficiency at nominal heat output, based on NCV.
- [η_s] \geq 65 % in accordance with point 1 (a) (iv), of Annex II of the REGULATION (EU) 2015/1185.

X. CONCLUSION:

Residential cooker model CONCEPT 2 AIR is satisfying fulfilling the requirements of REGULATION (EU) 2015/1185.

XI. ENCLOSURES:

- 11.1. Picture of residential cooker: 1
- 11.2. Assembly drawing of the sample: 1.



28.01.2020	MANAGER:
	(eng. Pl. Iliev)

NOTE:

The test results conclusions relate only to the tested samples.

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This document is only informative.