

TEST REPORT n. 1880-CPR-025-004-15

## Initial Type Testing

Residential space heating appliances fired by wood pellets  
EN 14785:2006

Manufacturer: KLOVER SRL  
Via A. Volta, 8  
37047 SAN BONIFACIO (VR)  
Italy

Type designation: SMART 80 BT, SMART 80 INOX, SMART 80 MAIOLICA,  
SMART 120, SMART 120 BT, SMART 120 INOX, SMART 120  
MAIOLICA

Type of appliance: Residential space heating appliances fired by wood pellets with  
indirect water system

Receipt date: June, 22 2015

Start test date: June, 23 2015

End test date: June, 26 2015

Testing laboratory: ACTECO SRL  
via Amman, 41  
33084 Cordenons (PN)  
Italy

Issue date: June, 10 2019

Head of Test Laboratory  
Dr.ssa Claudia Marcuzzi

The results of the tests relate only to the tested appliance.  
This test report shall not be reproduced except in full, without written approval of the laboratory.  
The appliance was returned to the manufacturer after the end of tests.  
All data is stored for 10 years

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## Task

ACTECO SRL was instructed to execute initial type testing to establish compliance according to the:

- UNI EN 14785:2006 Residential space heating appliances fired by wood pellets
- UNI CEN/TS 15883:2009 Residential solid fuel burning appliances. Emission test methods
- Client's documents

The practical tests were performed in the laboratory in Cordenons (PN), via Amman, 41.

The type designations indicated in page 1 are identical to the already tested appliance designated "SMART 80". The practical tests were performed in the laboratory in Cordenons (PN), via Amman, 41 (see Test Reports: n°1880-CPR- 025-15 and n°1880-CPR- 025-001-15).

In the type designations:

SMART 80 BT, SMART 80 INOX, SMART 80 MAIOLICA,  
SMART 120, SMART 120 BT, SMART 120 INOX, SMART 120  
MAIOLICA

the difference regards aesthetic features and the presence of a lateral compartment .The main parts, components, combustion room, heating parts are identical.

## Description of the appliance

Residential space heating appliances fired by wood pellets with indirect water system.

The combustion air is taken from the test room.

### Key data of appliance

Appliance	SMART 80 BT, SMART 80 INOX, SMART 80 MAIOLICA, SMART 120, SMART 120 BT, SMART 120 INOX, SMART 120 MAIOLICA	
Fuel		wood pellet
Fuel throughput	kg/h	5,33
Total heating output	kW	22,6
Space heating output	kW	3,5
Water heating output	kW	19,1
CO emission based on 13% O <sub>2</sub>	mg/m <sup>3</sup>	84
Efficiency	%	88,1
Flue gas temperature	°C	210
Necessary flue draught	Pa	12,1
Flue gas mass flow	g/s	13,3
Permissible maximum operating pressure	bar	2,5
Minimum clearance distances from exposed / combustibile materials	from rear wall from side walls	200 mm 200 mm

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**STATEMENTS OF THE TEST RESULTS**

The following requirements of EN 14785:2006 are met:

- materials, design and construction requirements specified in clause 4 (as declared by the manufacturer);
- the safety requirements specified in clause 5;
- the performance requirements specified in clause 6;
- the installation and operating instructions requirements specified in clause 7;
- the marking information requirements specified in clause 8.

PERFORMANCE AT THE NOMINAL HEAT OUTPUT TEST			
Parameter		result	EN 14785:2006 limit
carbon monoxide [at 13% O <sub>2</sub> ]	%	0,007	< 0,04
efficiency	%	88,1	> 75
PERFORMANCE AT THE REDUCED HEAT OUTPUT TEST			
Parameter		result	EN 14785:2006 limit
carbon monoxide [at 13% O <sub>2</sub> ]	%	0,023	< 0,06
efficiency	%	91,4	> 70

The appliances

SMART 80 BT, SMART 80 INOX, SMART 80 MAIOLICA,  
SMART 120, SMART 120 BT, SMART 120 INOX, SMART 120  
MAIOLICA

of **KLOVER SRL** comply with the requirements of the harmonized European standard UNI EN 14785:2006 Residential space heating appliances fired by wood pellets

Compliance with the clauses of the harmonized European standard EN 14785:2006 confers a presumption of fitness of the appliance covered by annex ZA for the intended uses indicated by the quoted above normative; reference shall be made to the information accompanying the CE marking.

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