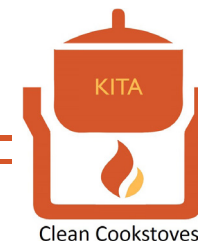


# Appendix B - Test results



All the test results of the water boiling test with the three stone fire, the cookstove of 2014 and the two prototypes are described here.

## Water boiling test - Three stone fire

### General information

Dimensions cookstove	Not applicable – three stone fire
Insulation material	None
Dimensions of used wood (incl. weight)	8 kg, sticks with diameter of 3-10 cm
Temperature air	26.9 °C
Temperature water	26.9 °C
Local boiling point of water	99.6 °C
Weight of the pot	12 kg
Weight of water	20 liter

### Cold start high power test

Time (sec)	Temperature (°C)	Notes
0	26.9	
120	27.5	
240	30.7	
360	34.0	
480	37.2	
600	41.4	
720	44.2	
840	47.4	
960	50.1	
1080	52.1	
1200	54.5	
1320	57.6	
1440	59.9	
1560	62.7	
1680	65.6	

Time (sec)	Temperature (°C)	Notes
1800	68.4	
1920	69.8	
2040	70.5	
2160	72.7	
2280	74.8	
2400	76.1	
2520	78.0	
2640	79.8	
2760	80.7	
2880	82.4	
3000	82.9	
3120	82.9	
3240	82.9	
3360	82.4	
3480	82.4	
3600	85.0	
3720	87.2	
3840	89.3	
3960	90.6	
4080	91.4	
4200	92.9	
4320	93.8	
4440	93.6	
4560	93.2	
4680	92.5	
4800	93.7	
4920	94.3	
5040	94.2	
5160	94.9	
		Time at boiling point
		Weight of unburned wood
		More than 5160 sec (86 min)
		2 kg

At 2700 sec (45 min) cookstove 1.0 reached local boiling point.

## Water Boiling Test - Cookstove 2014

### General information

Dimensions cookstove	
Insulation material	Mix of 2 parts clay, 2 parts laterite, 1,5 part sawdust, 1,5 part wood ash (parts based on volumes)
Dimensions of used wood (incl. weight)	5 kg, sticks with diameters of 3-10 cm
Temperature air	27.9 °C
Temperature water	27.9 °C
Local boiling point of water	99.6 °C
Weight of the pot	12 kg
Weight of water	20 liter

### Cold start high power test

Time (sec)	Temperature (°C)
0	27.9
120	35.8
240	39.9
360	41.6
480	44.0
600	46.8
720	48.7
840	50.8
960	54.3
1080	57.7
1200	61.0
1320	64.2
1440	68.2
1560	72.5
1680	75.9
1800	80.6
1920	84.5
2040	91.0
2160	96.0
2280	97.3
2400	97.8
2520	99.0
2640	99.6
Time at boiling point	2640 sec (44 min)
Weight unburned wood	2 kg

### Notes

Timer started too late,  
pot was already placed on  
the cookstove.

## Water Boiling Test - Cookstove 2015 1

### General information

Dimensions cookstove	
Insulation material	Mix of 2/3 ash and 1/3 rice husk
Dimensions of used wood (incl. weight)	4.5 kg, sticks with diameter of 3-10 cm
Temperature air	28.9°C
Temperature water	28.9°C
Local boiling point of water	99.6 °C
Weight of the pot	12 kg
Weight of water	20 liter

### Cold start high power test

Time (sec)	Temperature (°C)	Notes
0	28.9	
120	31.7	
240	35.5	
360	40.3	
480	44.4	
600	48.3	
720	51.5	
840	54.0	
960	56.7	
1080	60	
1200	63.1	
1320	66.0	
1440	70.1	
1560	74.9	
1680	79.4	
1800	81.1	
1920	85	
2040	86.3	
2160	88.8	
2280	88.8	Thermometer broke down
Time at boiling point	~ 2700 sec (45 min)	
Weight of unburned wood	1.5 kg	

## Water Boiling Test - Cookstove 2015 2

### General information

Dimensions cookstove	
Insulation material	Mix of 2/3 ash and 1/3 rice husk
Dimensions of used wood (incl. weight)	6 kg, sticks with diameter of 3-10 cm
Temperature air	30.2 °C
Temperature water	30.2 °C
Local boiling point of water	99.6 °C
Weight of the pot	12 kg
Weight of water	20 liter

### Cold start high power test

Time (sec)	Temperature (°C)	Notes
0	30.2	
120	34.0	
240	37.3	
360	41.6	
480	45.5	
600	48.8	
720	51.5	
840	54.1	
960	56.9	
1080	59.4	
1200	62.3	
1320	64.8	
1440	67.4	
1560	70.9	
1680	74.1	
1800	76.7	
1920	80.0	
2040	82.8	
2160	86.7	
2280	92.1	
2400	98.6	
Time at boiling point	2400 sec (40 min)	
Weight of unburned wood	2.5 kg	