Sl. No.	Other Parameters	Units	Results
a	CO_2 : Biomass (Mass ratio)	----------	1.75 ± 0.05
b	CO : CO_2 (Mass ratio)	----------	0.006 ± 0.0015
c	Total Particulate Matter (TPM)* excluding $PM_{2.5}$	Mg /kg	22 ± 3
d	CO/kg biomass/hour	mg / min	262
		g / MJ of fuel energy	0.6
e	Particulate matter excluding $PM_{2.5}$	mg / kg	15
		mg / min	0.36
		mg / MJ	1
f	Background values of $PM_{2.5}$ in the domestic and laboratory environment before and much after the experiment	µg / m^3	20 – 40
g	$PM_{2.5}$ during the light up period of few minutes	µg / m^3	200

Table 2.2 Performance parameters of Agni Sakhi stove

*TPM may contain more material obtained from direct experimentation of particulate matter and particulate matter excluding PM2.5 may consist of PM 10 indicated by the laser based instrument

Table 2.3 compares the performance criteria of the Agni Sakhi stove against the Tier 4 eligibility standards of IWA again in the Fire Laboratory of Jain University.

Sl. No.	IWA performance metrics and tiers	Units	Metrics	
			Tier 4 eligibility	Agni Sakhi*
1	High power thermal	%	≥45%	**38**

Table 2.3: Efficiency and emission performance of Agni Sakhi stove (IWA requirements)

	efficiency (1.5 kg / hr)			
	Low power specific consumption rate	MJ / min. L**	≤0.017	0.4 MJ/ min***
2	High power CO	g/MJd	≤8	0.70 ± 0.16
	Low power CO	g / min.L	≤0.09	0.10 ± 0.02
3	High power $PM_{2.5}$	mg / MJd	≤41	27 ± 3 ****
	Low power $PM_{2.5}$	mg / min.L	≤1	NA
4	High power indoor emissions CO	g / min	≤0.42	0.27 ± 0.03
	Low power indoor emissions CO	g / min	NA	0.05 ± 0.01
5	High power indoor emissions $PM_{2.5}$	mg / min	≤2	1.9 ± 0.1
	Low power indoor emissions $PM_{2.5}$	mg / min	NA	0.6 ± 0.1