

ANALISA DISTRIBUSI TEMPERATUR KOMPOR SERBUK KAYU AKIBAT PENAMBAHAN DINDING API (FIRE WALL) DENGAN MENGUNAKAN *INFRARED THERMOGRAPH*

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ABSTRACT

Household sector as the second largest energy user after the industrial sector, the reality of what happened in Papua subsidized price of kerosene has reached Rp 6,000 - Rp 10,000/liter due to government policy. Wood processing industry produces 40% of wood waste which cause problems that impact on the environment. Need to use it into value added products, one of them as an alternative energy source to help alleviate the local economy.

The method used in this study is an experimental analysis, by comparing the stove without the firewall and the firewall, and the temperature distribution was taken using infrared thermograph, and the other to obtain temperature data used infrared thermometer.

The results of this study showed the exit temperature (out) with firewalls tend to be higher (591,1°C) compared with no firewall (583°C), because the firewall to isolate heat so that the heat of combustion are all routed through the firewall to the outside of the pan is reinforced with color degradation results thermograph. But without the firewall and the temperature rising back tends to decline because of the longer sawdust burning to ashes so that has not been burned sawdust automatically drops down so that the distance of the pot with the heat source and the heat of combustion is much spread do not like using a firewall

Kata kunci : sawdust stove, firewall, infrared thermograph