

Firelog

From Wikipedia, the free encyclopedia

A **firelog** is a manufactured log constructed to be used as wood fuel. Firelogs are designed to be inexpensive, while being easier to ignite, and burn longer, and more efficiently than firewood. Firelogs are traditionally manufactured using two methods. The first uses only compressed sawdust and the second uses sawdust and paraffin, which is mixed and extruded into a log shape. The extruded firelogs are individually wrapped in paper packaging which can be ignited to start burning the firelog as the paraffin is readily combustible.

A new cleaner firelog has now been developed using waste fibre from the oil palm fruit bunches of South East Asia. Unlike sawdust logs these burn with zero sulfur emissions. Also unlike sawdust logs, no trees need to be felled to produce these firelogs. While it is beneficial that the oil palm derived logs use waste fibre, the overall impact of palm oil plantations is problematic because vast areas of virgin tropical rain forest in Borneo and Sumatra are being clear cut to open up land for palm plantations. This activity directly threatens habitats of endangered species such as the orangutan.

[1]

Other new types of firelogs include one made from waste wax-cardboard such as that used in the packing of perishable foods for shipment, which is used to create a compressed cardboard firelog, and another made from renewable Greek cotton plants, offering a high energy content.

The materials used for a traditional firelog are variable, the sawdust used is often commercial wood waste from manufacturers, or waste agricultural biomass (nut shells, fruit pits, etc.); additionally bio-wax may be used in lieu of paraffin (petroleum-based wax).

There are now a number of wood and wax firelogs made using renewable materials. These are made using plant or animal based renewable waxes such as palm oil. These logs can be considered to be carbon neutral firelogs during combustion as the carbon released on combustion is the same carbon absorbed when the plants are growing. Sulphur emissions are virtually eliminated with renewable firelogs as they do not contain paraffin waxes.

Energy content comparison

Extruded firelog	1500 BTU/lb	3.4 MJ/kg
Firewood	6190 BTU/lb	14.4 MJ/kg
Wood pellets	8400 BTU/lb	19.54 MJ/kg
Compressed firelog	8500 BTU/lb	19.8 MJ/kg
Palm fibre firelog	10500 BTU/lb	24.4 MJ/kg
Java-Log	12620 BTU/lb	29.3 MJ/kg
Northland	13540 BTU/lb	31.4 MJ/kg
Duraflame Xtra Time	13770 BTU/lb	32.0 MJ/kg
Duraflame Easy Time	14420 BTU/lb	33.5 MJ/kg
Pine Mountain Superlog	15190 BTU/lb	35.2 MJ/kg
Cotton plant firelog	17000 BTU/lb	39.8 MJ/kg
Fossil fuel oil or Diesel	18600 BTU/lb	43.26 MJ/kg

See also

- Firewood
- Wood fuel
- Wood briquette
- Wood pellet

References

1. "THE EFFECTS OF PALM OIL HOW DOES PALM OIL HARM ORANGUTANS AND OTHER WILDLIFE?". Orangutan Foundation International. Retrieved 3 January 2015.

External links

- General information about firelogs (http://www.hearth.com/econtent/index.php/articles/general_information_about_firelogs/)
- "Hassle-free fire logs provide environmental benefits" (<http://www.csmonitor.com/2002/0102/p21s1-lign.html>)
- "Content and emission characteristics of Artificial Wax Firelogs" (<http://www.epa.gov/ttnchie1/conference/ei15/poster/li.pdf>)
- "Wood pellets BTU values" (<http://www.woodpellets.com/BTUvalues.aspx>)
- "Micro Gasification 2.0 Cooking with gas from dry biomass" (https://energypedia.info/wiki/File:Micro_Gasification_2.0_Cooking_with_gas_from_dry_biomass.pdf) says "1 liter or 0.83 kg of diesel is equivalent to 2.5 kg of dry wood or 10 kWh of electrical power"

Retrieved from "<https://en.wikipedia.org/w/index.php?title=Firelog&oldid=736272217>"

Categories: Fuels | Wood fuel

-
- This page was last modified on 26 August 2016, at 10:02.
 - Text is available under the Creative Commons Attribution-ShareAlike License; additional terms may apply. By using this site, you agree to the Terms of Use and Privacy Policy. Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.