

What are Wood Pellets?

Wood Pellets are a form of compacted biomass in order to increase the density of the fuel and thus making it more economic to transport over longer distances. Most pellets are made from sawdust and ground wood chips, which are waste materials from trees used to make furniture, lumber, and other products. Resins and binders (lignin) occurring naturally in the sawdust hold wood pellets together, so they usually contain no additives.

Other materials, like straw, corn, nut hulls and similar can also be used to produce pellets, but those are less common. Pellets are cylindrical in form and their typical dimensions are 5-6 mm in diameter and 15-25 mm in length.

One of the main advantages of wood pellets compared to other commonly used biomass fuels (wood chips and logs) is their convenience: bags of pellets stack compactly and store easily, their uniform and small shape allows them to flow making the automation of fuel handling easy. Furthermore, the cost of a pellet boiler is less than wood chip and log burning systems. The small size of pellets also allows for precisely regulated fuel feed and in turn, combustion air can be regulated easily for optimum burn efficiency. High combustion efficiency is also due to the uniformly low moisture content of pellets (typically 7-8%, compared to 30-35% moisture content in wood chips), and this means a high heat output and a very low level of unwanted emissions. As a biomass fuel, pellets offer the advantages of sustainable energy supplies through renewable raw materials. In addition, pellets are a by-product, not a primary user, of these renewable materials, and using pellets also helps reduce the costs and problems of waste disposal (Velimir Šegon, <http://www.aboutbioenergy.info/index.html>)