

BTU Values and Characteristics of Combustible Waste Materials

This chart lists the typical BTU values per pound of various combustible waste materials, along with estimated moisture content, ash content, and total energy per ton of material. These values are averages and can vary based on feedstock composition and pre-processing.

Material	Typical BTU/lb	Moisture Content (%)	Ash Content (%)	Energy per Ton (BTU)
Polyethylene (PE)	19,000	1.0	0.5	38,000,000
Waste Oil	19,000	0.5	0.1	38,000,000
Plastic (Mixed)	18,000	2.0	6.0	36,000,000
PVC Plastic	16,000	1.0	10.0	32,000,000
Tires (Shredded)	16,000	1.0	5.0	32,000,000
Coal Fines	12,000	10.0	15.0	24,000,000
Polyethylene Terephthalate (PET)	11,000	0.6	0.02	22,000,000
Woody Biomass (Softwoods)	9,000	15.0	2.0	18,000,000
Woody Biomass (Mixed Hardwoods)	8,500	20.0	3.0	17,000,000
Construction & Demolition Wood	8,500	10.0	2.0	17,000,000
Cardboard	8,000	5.0	8.0	16,000,000
Waste Wood Chips	8,000	15.0	5.0	16,000,000
Textiles	8,000	10.0	10.0	16,000,000
Agricultural Biomass (Bagasse)	7,500	50.0	3.0	15,000,000
Agricultural Biomass (Corn Stover)	7,200	15.0	5.0	14,400,000
Paper (Mixed)	7,000	6.0	10.0	14,000,000
Sewage Sludge (Dry)	6,500	10.0	30.0	13,000,000
Agricultural Biomass (Rice Husk)	6,200	10.0	15.0	12,400,000
Sargassum Seaweed (Dry)	6,000	15.0	15.0	12,000,000
Animal Manure (Dry)	5,000	15.0	25.0	10,000,000
Municipal Solid Waste (MSW)	4,000	25.0	20.0	8,000,000
Yard Waste	3,500	55.0	10.0	7,000,000
Sargassum Seaweed (Wet)	2,800	85.0	35.0	5,600,000
Food Waste	2,500	70.0	8.0	5,000,000