

BTU Table

	<u>kcal/kg</u>	<u>Fixed Carbon</u>	<u>Moisture</u>	<u>Ash</u>	<u>Volatiles</u>	<u>Btu/dry lb</u>	<u>kJ/kg</u>
Almond Prunings	3,058	21.54%	18.0%	1.63%	58.83%	5,500	12,793
Asphalt Shingles	8,339		5.0%			15,000	34,889
Auto Fluff	7,465	50.00%	18.0%		32.00%	13,428	31,233
Bagasse	4,436	14.95%	20.0%	11.00%	54.05%	7,980	18,561
Barley Straw	4,141	20.90%	14.0%	10.00%	55.10%	7,449	
Bamboo	3,800	20.00%	18.0%		62.00%	6,836	15,900
Brown coal	4,500		18.0%			8,095	18,828
Brown Paper	4,398	9.80%	10.0%	1.10%	79.10%	7,911	18,400
Cacao Shrub	3,298	24.00%	18.0%		58.00%	5,933	13,800
Car tires	8,300		18.0%			14,930	34,726
Cardboard	3,891	12.90%	18.0%	5.40%	63.70%	7,000	16,282
Cardboard corrugated	3,920	12.90%	18.0%	5.40%	63.70%	7,051	16,400
Casuarina	4,483	19.59%	18.0%	1.83%	60.58%	8,064	18,757
CDR	4,058	41.00%	18.0%		41.00%	7,300	16,979
Chicken Manure	3,780	10.30%	27.0%	15.70%	47.00%	6,800	15,816
China grass	4,039	20.00%	18.0%		62.00%	7,266	16,900
Citrus peels	4,500	20.00%	18.0%		62.00%	8,095	18,828
Coal	6,671	10.00%	18.0%		72.00%	12,000	27,911
Coal - Pittsburgh Seam	7,583	55.80%	18.0%	10.30%	15.90%	13,641	31,728
Coconut shell	5,984	32.00%	18.0%		50.00%	6,836	15,900
Coffee bean shells	6,000	10.00%	18.0%		72.00%	10,793	25,103
Commercial Waste	4,447	30.00%	18.0%		52.00%	8,000	18,608
Compost	4,207		18.0%			7,567	17,600
Cork	6,310	8.00%	18.0%		74.00%	11,350	26,399
Corn	4,398	20.00%	18.0%		62.00%	7,911	18,400
Corn Stover	4,405	19.25%	18.0%	5.58%	57.17%	7,924	18,430
Corncobs	4,483	18.54%	18.0%	1.36%	62.10%	8,064	18,757
Cotton gin trash	3,922	15.10%	18.0%	17.60%	49.30%	7,055	16,409
Cotton seeds	3,298	20.00%	18.0%		62.00%	5,933	13,800
Cotton Stalk	4,361	22.43%	18.0%	6.68%	52.89%	7,845	18,247
Cow Manure	4,725	15.00%	20.0%	13.00%	52.00%	8,500	19,771
Electrical Waste	7,154	21.00%	5.0%		74.00%	12,869	29,932
Food Waste	5,001	20.00%	18.0%		62.00%	8,995	20,922
Gin Trash	4,058	24.00%	18.0%		58.00%	7,300	16,979
Green Waste	4,070	20.00%	18.0%		62.00%	7,321	17,028
Hay	3,203	24.00%	18.0%		58.00%	5,761	13,400
Horse Manure	3,058		25.0%	4.00%		5,500	12,793
Hospital waste	5,473	10.00%	20.0%		70.00%	9,845	22,899
Household waste pre-sorted	4,500	10.00%	18.0%		72.00%	8,095	18,828
Human Sludge	6,671	5.00%	25.0%	35.00%	35.00%	12,000	27,911
King Grass	4,392	20.00%	15.0%		65.00%	7,900	18,375
Leather	4,169	8.00%	18.0%		74.00%	7,500	17,445
Lignin	5,059					9,100	21,166

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Paper sludge	3,920					7,051	16,400
Macadamia shell	4,826	22.68%	18.0%	0.40%	58.92%	8,681	20,206
Manure (dried)	3,800		18.0%			6,836	15,900
Meat Waste	5,288	8.00%	18.0%		74.00%	9,512	22,124
Medical Waste	7,138	24.00%	18.0%		58.00%	9,845	22,899
MSW 5.5K	3,058	10.00%	40.0%	12.00%	38.00%	5,500	12,793
MSW 5K	2,780	10.00%	18.0%	12.00%	60.00%	5,000	11,630
MSW 6.5K	3,614	10.00%	18.0%	10.00%	62.00%	6,500	15,119
MSW 6K	3,336	10.00%	20.0%	12.00%	58.00%	6,000	13,956
MSW 7.0	3,891	10.00%	18.0%	12.00%	60.00%	7,000	16,282
MSW High Plastic	5,384	31.00%	15.0%	5.00%	49.00%	9,685	22,526
Natural Gas	8,895		18.0%			16,000	37,215
Neoprene	7,100		18.0%			12,771	29,706
Newspaper	3,920	12.20%	18.0%	1.50%	68.30%	7,051	16,400
Nylon	7,570		18.0%			13,617	31,672
Oat Hulls	3,855	16.55%	10.4%	5.22%	67.80%	6,934	16,128
Oil sludge	8,796		18.0%			15,822	36,800
Palm Oil EFB	4,048	14.00%	18.0%		68.00%	7,282	16,938
Pallet Wood	4,559	18.00%	20.0%	2.00%		8,200	19,073
Paper adhesive coated	4,207	20.00%	10.0%		70.00%	7,567	17,600
Paper Plastic Coated	6,816	15.00%	10.0%	2.00%	73.00%	12,261	28,517
Paper sludge	3,920					7,051	16,400
Paraffin	10,349		18.0%			18,616	43,300
Peach Pits	4,973	19.85%	18.0%	1.03%	61.12%	8,945	20,806
Peanut Hulls	4,450	21.09%	18.0%	5.89%	55.02%	8,005	18,618
Peat, S-H3	5,255	26.87%	18.0%	4.20%	50.93%	9,452	21,985
Pig Manure	4,466	12.00%	25.0%	25.00%	38.00%	8,034	18,687
Pineapple Waste	4,194	10.00%	10.0%	0.05%	79.95%	7,544	17,547
Plastic Roll	6,500	0.02%	1.46%	0.03%	98.49%	21,000	48,845
Plastics	7,758	1.46%	5.0%	2.00%	91.54%	15,000	34,889
Polyethane foam	9,770	5.00%	5.0%	3.00%	87.00%	17,574	40,877
Polyethylene	10,990	15.00%	5.0%	3.00%	77.00%	19,769	45,981
Polypropylene	11,030		5.0%	3.00%		19,841	46,148
Polystyrol carbon	10,480	30.00%	5.0%	3.00%	62.00%	18,851	43,847
Polystyrol EPS	9,800	30.00%	5.0%	3.00%	62.00%	17,628	41,002
Railroad Ties	4,447	20.00%			80.00%	8,000	18,608
RDF	6,006	41.00%	15.0%		44.00%	10,804	25,128
RGEN MSW	4,308	15.00%	15.0%	5.00%	65.00%	7,750	18,026
Rice Hulls	3,555	10.00%	10.0%	17.90%	62.10%	6,395	14,874
Rubber (Crum	7,500	33.00%			67.00%	13,491	31,379
Sewage sludge (dried)	3,298					5,933	13,800
Soybean Waste	4,169	20.00%	18.0%		62.00%	7,500	17,445
Sudan Grass	4,154	18.60%	18.0%	8.65%	54.75%	7,471	17,378
Sugar Beets	3,242	20.00%	18.0%		62.00%	5,831	13,563
Sugar Cane	6,810	10.00%	18.0%		72.00%	12,250	28,493

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Sugarcane Bagasse	4,500	14.95%	18.0%	11.27%	55.78%	8,095	18,828
Sunflower Staple	4,300	10.00%	10.5%	7.60%	71.90%	7,735	17,991
Sunflower Seeds	4,559	8.00%	18.0%		74.00%	8,200	19,073
Switchgrass	4,503	21.00%		6.00%	73.00%	8,100	18,840
Tar acid	5,600	2.08%			97.92%	10,073	23,430
Tar and refinery residues	9,200	4.00%			96.00%	16,549	38,492
Tar paper	6,390	1.22%			98.78%	11,494	26,735
Textiles	3,500	10.00%			90.00%	6,296	14,644
Tire Chips w/o steel	7,500	35.00%		5.00%	60.00%	13,491	31,379
Tire Chips w/steel	7,500	32.00%		10.00%	58.00%	13,491	31,379
Tobacco powder	3,012	10.00%			90.00%	5,417	12,600
Turkey Manure	3,429	1.22%			98.78%	6,168	14,346
Walnut Shells	4,820	21.16%		0.56%	78.28%	8,670	20,166
Waste Oil	8,895	2.43%			97.57%	16,000	37,215
Waste Paper	3,891	10.00%	15.0%		75.00%	7,000	16,282
Wheat Straw	4,182	19.80%	12.0%	8.90%	59.30%	7,523	17,498
Beech	4,868		15.0%	0.65%		8,756	20,366
Blackhills Pine	4,868	11.41%	6.3%	0.48%	81.77%	8,319	
Black Locust	4,708	18.26%	15.0%	0.80%	65.94%	8,468	19,696
Black Walnut Prunings	4,736	18.53%	18.0%	0.78%	62.69%	8,520	19,816
Cedar	4,700	21.00%	15.0%	2.00%	62.00%	8,454	19,664
Digested Sludge	3,280	10.00%	18.0%		72.00%	5,900	13,723
Douglas Fir	5,028	13.70%	15.0%	0.80%	70.50%	9,044	21,035
Douglas Fir bark	5,278	25.80%	15.0%	1.20%	58.00%	9,495	22,085
Eucalyptus	4,638	17.82%	15.0%	0.76%	66.42%	8,344	19,407
Gmelina	4,753	18.00%	15.0%		67.00%	8,550	19,887
Hickory	4,818		15.0%	0.73%		8,666	20,156
Hybrid Poplar	4,661	18.00%	15.0%		67.00%	8,384	19,501
Madrone	4,660	16.44%	15.0%	0.57%	67.99%	8,382	19,496
Mango Wood	4,579	11.36%	15.0%	2.98%	70.66%	8,236	19,157
Maple	4,767		15.0%			8,576	19,946
Pine needles	4,806	26.12%	18.0%	1.50%	54.38%	8,644	20,106
Plywood	4,529	15.77%	5.0%	2.09%	77.14%	8,146	18,947
Ponderosa Pine	4,782	17.17%	15.0%	0.29%	67.54%	8,601	20,006
Poplar	4,629	16.35%	15.0%	1.33%	67.32%	8,326	19,367
Red Alder	4,610	12.50%	15.0%	0.40%	72.10%	8,292	19,287
Redwood	4,800	16.10%	15.0%	0.40%	68.50%	8,634	20,083
Salt Cedar	5,392	22.00%	40.0%		38.00%	9,700	22,562
Sycamore	4,715	19.21%	15.0%	0.67%	65.12%	8,481	19,726
Treated wood	4,500	1.23%			98.77%	8,095	18,828
Western Hemlock	4,789	15.20%	15.0%	2.20%	67.60%	8,614	20,036
White Fir	4,765	16.58%	15.0%	0.25%	68.17%	8,571	19,936
White Oak	4,638	17.20%	15.0%	1.52%	66.28%	8,344	19,407
Wood Pellets	4,683	18.00%	15.0%	1.40%	65.60%	8,424	19,593
Loblolly Pine bark	5,202	44.90%	15.0%	0.40%	39.70%	9,357	21,765