

# Typically Softwood Pellet Feedstock Chemical Constituents

<b>% of Dry Weight</b>	<b>Sawdust</b>	<b>Bark</b>
<b>C</b>	<b>51.9</b>	<b>52.5</b>
<b>H</b>	<b>6.0</b>	<b>5.7</b>
<b>O</b>	<b>41.8</b>	<b>39.3</b>
<b>N</b>	<b>0.12</b>	<b>0.40</b>
<b>S</b>	<b>0.02</b>	<b>0.03</b>
<b>Cl</b>	<b>0.02</b>	<b>0.02</b>
<b>K</b>	<b>0.04</b>	<b>0.17</b>
<b>Na</b>	<b>0.018</b>	<b>0.036</b>
<b>Ca</b>	<b>0.065</b>	<b>0.6</b>
<b>Mg</b>	<b>0.016</b>	<b>0.062</b>
<b>P</b>	<b>0.0075</b>	<b>0.041</b>
<b>Si</b>	<b>0.03</b>	<b>0.2</b>
<b>Al</b>	<b>0.005</b>	<b>0.04</b>
<b>Fe</b>	<b>0.008</b>	<b>0.03</b>

# Typical Btu/Ton Heating Value Wood

<b>Wood</b>	<b>Gross Heating Value</b>	<b>% Efficiency</b>	<b>Net Heating Value</b>
<b>Green</b>	<b>8,600,000</b>	<b>67</b>	<b>5,740,000</b>
<b>Semi-Dried</b>	<b>12,040,000</b>	<b>74</b>	<b>8,950,000</b>
<b>Air-Dried</b>	<b>13,760,000</b>	<b>77</b>	<b>10,560,000</b>
<b>Oven-Dried</b>	<b>17,200,000</b>	<b>80</b>	<b>13,800,000</b>
<b>SW Kiln Dried</b>	<b>15,824,000</b>	<b>78</b>	<b>12,300,000</b>
<b>HW Kiln Dried</b>	<b>15,996,000</b>	<b>79</b>	<b>12,600,000</b>
<b>Pellets</b>	<b>16,400,000</b>	<b>83</b>	<b>13,600,000</b>

## Terpenes in Softwood Sawdust – Pellets

Sample	Sawdust (g/kg od)	Pellets
Flash Dried	3.86	0.11
Rotary Drum Dried	1.38	0.01
Rotary Drum Dried	1.58	0.08
Lumber Kiln		0.09
Lumber Kiln		0.12