



SAMPLE

Feedstock Test Report: Wood Chips

Summary: The RocketChar 302 operates excellently on dry wood chips

Testing Date: January 13th, 2025

Stove Operator(s): Sean Mendick, Mason Ferris

Machine: RocketChar 302

Production Temperature: 1275° F

Machine Settings: Biochar Auger – 3; Fuel Auger – 2.5; Water pump – 35

Biochar Production: 3 gal/hour loosely packed biochar

Feedstock Consumption: 10.5 gal/hour wood chips

Feedstock: Dry wood chips – less than 1-1/2 inch chip size



The proximate analysis found that the rice hulls had a moisture content of x.x% and a dry bulk density of 0.xx g/cc. Accounting for the moisture content, the sample was determined to have the following composition on a dry weight basis.

Carbon	39.7 %
Hydrogen	4.7 %
Nitrogen	0.5 %
Oxygen	38.1 %
Ash	17.0 %

For additional details regarding the analysis, please refer to the attached report for wood chips.

Biochar: Lightweight loosely packed biochar crumbles easily.



The proximate analysis determined that the wood chip biochar had a moisture content of xx.x% and a dry bulk density of xx.x g/cc. Accounting for the moisture content, the sample was determined to have the following composition on a dry weight basis.

Carbon	41.6 %
Hydrogen	1.4 %
Nitrogen	0.6 %
Oxygen	3.2 %
Ash	53.2 %

For further details regarding the analysis, please refer to the attached report for Rice Hull Biochar

Operator Notes:

In 1 hour of steady state operation the machine produced 3 gallons of wood chip biochar and consumed approximately 10.5 gallons of wood chips.

The RocketChar runs cleanly on dry wood chips that have been screened to particle size of 1.5” or less to flow smoothly through the augers. The chips burn well and don’t produce excess heat which allows for steady fuel feeding and consistent operation. Upon reviewing the data collected we recommend slightly increasing the speed of the feed auger and raising the set temperature to maintain higher reactor temperatures and increase output.

Overall, wood chips make an excellent feedstock for the RocketChar, allowing steady operation and producing very consistent good-looking biochar.