

Viscosity, Acidity, and Heating Value of Common Pyrolysis Oils

Biomass	Viscosity (cSt)	Acidity (pH)	HHV (MJ/kg)
Pine	50 ° C 27.5	2.4	18.7
Forestry residue brown	40 ° C 17	3.2	16.9
Forestry residue green	40 ° C 24	-	16.7
Eucalyptus crandis	40 ° C 23	2.2	17.3
Barley straw	-	3.7	11.1
Timothy hay	40 ° C 5	3.4	13.3
Reed canary grass	-	3.6	16.0
Pine	20 ° C, 22.60Pa S	2.66	24.73
Pine wood	50 ° C, 154 cP under 0.05 shear rate in s ⁻¹	3.1	21.9
Oak wood	50 ° C, 171 cP under 0.05 shear rate in s ⁻¹	3.1	18.7
Pine bark	50 ° C, 2529 cP under 0.05 shear rate in s ⁻¹	3.2	18.3
Oak bark	50 ° C, 5047 cP under 0.05 shear rate in s ⁻¹	3.2	19.0