Perpetual Next shortlist of converted & analysed feedstocks

Feedstock	Processed at (Derby/Dilsen/other)	Scale (lab/industrial)	Net CV dry (MJ/kg)	Total carbon (dry) %	Fixed carbon (dry) %	Volatiles (dry) %	Ash (dry) %
Sugarcane trash	TNO	Lab	20,5	54	30,9	59,8	9,3
Tomato waste	University of Leeds	Lab	21	56,1	39,8	44,1	16,1
Alder	Derby	Industrial	21	58,1	27,2	72,2	0,6
Pine	Derby	Industrial	21	58,5	28,4	71,1	0,5
Sugarcane trash	TNO	Lab	22,6	58,8	44,8	40,3	14,9
Waste wood type B (demolition wood) (285°C)	Dilsen	Industrial	21,45	59,48	34,32	62,04	3,64
Wine stem	University of Leeds	Lab	22	60,3	45,2	45,6	9,2
Miscanthus	Derby	Industrial	21	60,8	37,1	57,7	5,2
Pine	Derby	Industrial	24	61,3	37,8	61,5	0,7
Mixture of wood chips (from forest maintenance) (300°C)	Dilsen	Industrial	23,73	64,95	40,01	57,69	2,3
Sugarcane bagasse	University of Leeds	Lab	24	65,2	52,7	40,4	6,9
Waste wood type B (demolition wood) (300°C)	Dilsen	Industrial	23,96	66,12	45,66	50,07	4,27
Miscanthus	Derby	Industrial	25	67,5	50,4	41,9	7,7
Maize residue	Cirad lab	Lab	26,045	68,81	59,7	28	12,3
Alder	Derby	Industrial	24	69,8	42,1	55,9	2
Wine stems	Cirad lab	Lab	26,244	71,36	57	33,2	9,8
Miscanthus	Derby	Industrial	27	71,4	59,9	32,2	7,9
Sugarcane bagasse	Cirad lab	Lab	29,066	74,31	67,2	27,6	5,2
Washed shredded roots	Cirad lab	Lab	28,448	76,82	69,1	22,9	8
Waste wood	Cirad lab	Lab	29,288	76,97	68,6	28,1	3,3
Miscanthus	Cirad lab	Lab	28,717	77,25	69,3	26,2	4,5
Alder	Derby	Industrial	29	77,9	66,9	30,2	2,9
Pinewood chips	Cirad lab	Lab	29,017	78,03	66,96	32,24	0,8
Pine	Derby	Industrial	29	78,5	70	28,5	1,5

Please note that biomass is a non homogeneous material and that there will be variation within a feedstock type based on source, soil, age etc.

Agricultural residues and herbaceous biomass have higher ash content due to salts.

Cirad lab: please note these had long residence times due to slow heating rate of equipment resulting into higher carbonisation grades.