

## Positive list of permissible biomasses for the production of biochar

European Biochar Certificate

### Feedstock

Origin	Feedstock	ID	EBC-Material	EBC-Agro	EBC-AgroOrganic	EBC-Feed	Special requirements and notes
Agriculture	Annual energy crops (e.g. corn, rape, sugar beets, sunflowers) grown specifically for energy or material biomass use.	Ag-01	✓	✓	✓	✓	For EBC-AgroOrganic only from organic cultivation. For C-sink certification, the amount of fertilizer used must be declared.
	Perennial energy crops (e.g. miscanthus, marbled silyphia, meadow cuttings) grown specifically for energetic or material biomass use	Ag-02	✓	✓	✓	✓	For EBC-AgroOrganic only from organic cultivation. For C-sink certification, the amount of fertilizer used must be declared.
	Woody biomass from short rotation plantations (SRC)	Ag-03	✓	✓	✓	✓	For EBC-AgroOrganic only from organic cultivation. For C-sink certification, the amount of fertilizer used must be declared.
	Tree, vine and shrub pruning	Ag-04	✓	✓	✓	✓	Particular attention to be paid to heavy metals from crop protection spraying. For EBC-Feed: only from defined and documented sources, biomass from municipal collection not allowed.
	Harvest residues such as straw, cabbage, leaves, stalks, husks	Ag-05	✓	✓	✓	✓	Particular attention to be paid to heavy metals from crop protection spraying.
	Old straw and grain dust	Ag-06	✓	✓	✓		Observe worker's protection in case of heavily dusty biomasses.
	Vegetables	Ag-07	✓	✓	✓		Only residual and waste materials that cannot or can no longer be used as animal feed. For EBC-AgroOrganic only from organic farming
	Seeds	Ag-08	✓	✓	✓		This only concerns expired seeds. For EBC-AgroBio only seeds from organic farming.
Forestry and wood processing	Bark	F-01	✓	✓	✓	✓	
	Wood chips only from mechanically treated wood (pure firewood)	F-02	✓	✓	✓	✓	Only from certified, sustainable forestry. Approved are the FSC and the PEFC labels, others on request.
	Wood, wood residues from mechanical processing (waste wood A1)	F-03	✓	✓	✓	✓	Only from certified, sustainable forestry. Approved are the FSC and the PEFC labels, others on request. For EBC-Feed: only from defined, well documented sources, biomass from municipal collection not allowed.
	Sawdust, sawdust shavings	F-04	✓	✓	✓	✓	Only from certified, sustainable forestry. Approved are the FSC and the PEFC labels, others on request.
Landscape management	Foliage	S-01	✓	✓	✓		No road wiping material. Special measures for checking leaves for contamination can be determined in the instruction manual.
	Root stocks	S-03	✓	✓	✓		The earth content is considered an additive and must not exceed 10% of the DM.
	Biomass from nature conservation	S-04	✓	✓	✓	✓	For EBC-Feed: only from defined, well documented sources, biomass from municipal collection not allowed.
Recycling economy	Urban green cuttings	R-01	✓	✓	✓		Without food- and other biomass processing wastes
	Waste paper	R-02	✓	(✓)			For EBC-Agro only partial assortments (paper with low mineral filler content) and with small amounts of foreign matter (max. 1% plastic). To be regulated in the operating manual if required.
	Untreated waste wood (A1), wood shavings, bark, wood wool	R-03	✓	✓	✓		
	Treated waste wood (glued, painted, coated) without PVC or heavy metal enrichment or wood preservatives (waste wood A2)	R-04	✓	(✓)			For EBC-Agro only partial assortments (e.g. pure plywood waste) without coating. To be regulated in the operating manual if necessary
	Treated waste wood (glued, painted, coated) with PVC content and/or heavy metal enrichment, without wood preservative (waste wood A3)	R-05	✓				
	Waste wood with wood preservatives (waste wood A4)	R-06	✓				
	Residues from industrial biomass processing	R-07	✓	(✓)	(✓)		Each individual feedstock needs to be evaluated by the EBC, and a special permit issued regulating additives, processing, controlling. R-07 feedstock are only permitted with the signed EBC process assessment.
Kitchen and canteen waste	Kitchen, canteen and restaurant residues	K-01	✓	✓			Contamination by plastic must not exceed 1% (15% for EBC-material).
Food processing residues on vegetable basis	Material from washing, cleaning, peeling, centrifuging and separation processes	N-01	✓	✓	✓		
	Pomace, kernels, husks, grit or press residues (e.g. from oil mills, spent grains)	N-02	✓	✓	✓	✓	
	Expired food residues	N-03	✓	✓	✓		no animal residues
	Manufacturing residues from the production of canned food	N-04	✓	✓	✓		only pure vegetable residues
	Residues from spices and seasoning	N-05	✓	✓	✓	✓	
	Residues from potato, corn or rice starch production	N-06	✓	✓	✓	✓	
	Fruit, grain and potato mashes, alcohol distillery residues	N-07	✓	✓	✓		
	Malt spent grains, -germ, and dust from beer production, hop spent grains, lees and sludge from breweries	N-08	✓	✓	✓		
	Pomace, wine lees, sludge from vinification	N-09	✓	✓	✓		
	Tobacco, tobacco dust, -grit, -ribs, -sludge	N-10	✓	✓	✓		
	Tea and coffee grounds	N-11	✓	✓	✓		
	Fruits	N-12	✓	✓	✓	✓	
	Molasses residues	N-13	✓	✓	✓	✓	
	Oilseed residues	N-14	✓	✓	✓	✓	
	Mushroom substrates	N-15	✓	✓	✓		

	Residues from the processing of coffee (silver skin), cocoa (press residues) or tea.	N-16	✓	✓	✓	✓	
Water maintenance	Screenings, floating debris, mowed material	W-01	✓	✓	✓		
	Aquatic plants	W-02	✓	✓	✓	✓	For EBC-Feed: only from aquaculture or dedicated collection of aquatic plants to strictly avoid impurities.
Textiles	Cellulose, cotton and plant fibers	T-01	✓	✓	✓		The proportion of synthetic fibers must not exceed 1% (EBC material: 15%). For AgroBio, the fibers must not be dyed or otherwise chemically treated.
	Fibers of hemp, sisal, etc.	T-02	✓	✓	✓		
Paper production	Paper fibre sludge	I-01	✓	✓	✓		Only from chemically untreated wood fibers, a pollutant analysis of the paper fiber sludge must be available
Bio-Digesters	Non-animal fermentation residues	G-01	✓	✓	✓		The proportion of animal source materials for the biogas plant must be less than 40%.

## Additives

Additives serve to improve pyrolysis conditions and biochar quality. Their share in the pyrolysed biomass must not exceed 10% DM in total.

Group	Feedstock						Special requirements
mineral and organic additives	Lime	Z-01	✓	✓	✓		
	Bentonite	Z-02	✓	✓	✓		
	Rock powder	Z-03	✓	✓	✓		
	Argile	Z-04	✓	✓	✓		
	Clay	Z-05	✓	✓	✓		
	Soil	Z-06	✓	✓	✓		
	Wood- und plant ashes	Z-07	✓	✓	✓		Only certified ashes. Approved are RAL-quality ashes. Further ashes on request. The instruction manual may include additional analyses.

The inclusion of other biomasses and additives not included in the positive list can be applied for at the Ithaka Institute.

The decision about the inclusion in the positive list as well as possible additional requirements will be made by the scientific advisory board of the EBC.

For difficult decisions such as sewage sludge or livestock manure, a scientific report is prepared.

All decisions are justified and published on the EBC website.