



Positive list of permissible biomasses for the production of biochar

European Biochar Certificate (last update 21st October 2025, Version 02_2025)

Feedstock

| Origin | Feedstock | ID | EBC-FeedPlus & EBC-Feed | EBC- AgroOrganic | EBC-Agro | EBC-Urban | EBC-Materials | EBC-Basic | Special requirements and notes |
|---|--|-------|----------------------------|---------------------|----------|-----------|---------------|-----------|---|
| | 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. |
| Agriculture: biomass from agricultural | Perennial energy crops (e.g. miscanthus, marbled silphyia, 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. |
| farms, including both residues and | 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. |
| biomass deliber- atly cultivated for biochar produc- | 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. |
| tion. | 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-AgroOrganic only seeds from organic farming. |
| Forestry and wood | Bark | F-01 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Only from certified, sustainable forestry. Approved are the FSC PEFC ans SURE labels, others on request. |
| processing: Natural bark and wood, untreated | Wood chips only from me- chanically treated wood (pure firewood) | F-02 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Only from certified, sustainable forestry. Approved are the FSC PEFC ans SURE labels, others on request. |
| or mechanically treated, from for- estry operations, sawmills or similar | Wood, wood residues from mechanical processing (waste wood A1) | F-03 | √ | ✓ | √ | √ | √ | √ | Only from certified, sustainable forestry. Approved are the FSC PEFC ans SURE labels, others on request. For EBC-Feed: only from defined, well documented sources, biomass from municipal collection not allowed. |
| operations | Sawdust, sawdust shavings | F-04 | ✓ | ✓ | ✓ | √ | √ | ✓ | Only from certified, sustainable forestry. Approved are the FSC PEFC and SURE labels, others on request. |
| Landscape management: Res- | Foliage | S-01 | | ✓ | √ | √ | √ | √ | No road wiping material. Special measures for checking leaves for contamination can be determined in the instruction manual. |
| by municipalities, | Root stocks | S-03 | | ✓ | ✓ | ✓ | ✓ | ✓ | The soil content is considered an additive and must not exceed 10% of the DM. |
| landowners, landscaping | Biomass from nature conservation | S-04 | (<) | ✓ | √ | √ | √ | √ | For EBC-Feed: only from defined, well documented sources, biomass from municipal collection not allowed. |
| contractors, NGOs active in nature conservation | General landscaping residues | S-05 | (<) | √ | ✓ | √ | √ | √ | For EBC-Feed: only from defined, well documented sources, road- side biomass and biomass from municipal collection not allowed. |

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|---|---|------|----------------------------|---------------------|----------|--|---|---|--|
| | Urban green cuttings | R-01 | | ✓ | ✓ | ✓ | ✓ | ✓ | Without food- and other biomass processing wastes. |
| | Waste paper | R-02 | | | (✓) | (✓) | ✓ | ✓ | For EBC-Agro and EBC-Urban only defined sub-assortments from defined sources (paper with low mineral filler content and without varnishes) and with small amounts of foreign matter: total content of synthetic coating, varnishes and plastic contamination max not exceed 1% (10% for EBC-Materials and EBC-Basic, individual approval needed when 1% limit is exceeded). To be regulated in the operating manual if required. |
| | Untreated waste wood (A1), wood shavings, bark, wood wool | R-03 | | ✓ | ✓ | √ | ✓ | √ | |
| Recycling economy: Residual | Treated waste wood (glued, painted, coated) without PVC or heavy metal enrichment or wood preservatives (waste wood A2) | R-04 | | | (<) | (<) | ✓ | ✓ | For EBC-Agro and EBC-Urban only sub-assortments from defined sources (e.g. pure plywood waste) without coating and max. 1% synthetic binder (glue). Synthetic binder and coating must in total not exceed 10% for EBC-Materials and EBC-Basic, individual approval needed when 1% limit is exceeded. To be regulated in the operating manual if necessary. |
| biomass, organic residues and wastes from in- dustrial processes ("defined source") | Treated waste wood (glued, painted, coated) with PVC content and/or heavy metal enrichment, without wood preservative (waste wood A3) | R-05 | | | | Synthetic binder, coatings and/or plastic co in total not exceed 1% and 10% for EBC-Ur rials/EBC-Basic, respectivly. More frequent and heavy metals may be specified in the c | Individual approval is needed for EBC-Urban and EBC-Materials. Synthetic binder, coatings and/or plastic contamination must in total not exceed 1% and 10% for EBC-Urban and EBC-Materials/EBC-Basic, respectivly. More frequent analysis on PCDD/F and heavy metals may be specified in the operating manual if necessary. | | |
| or from collection/ separation by specific recycling companies | Waste wood with wood pre- servatives (waste wood A4) | R-06 | | | | (✓) |) (\sqrt) \ | Individual approval is needed for EBC-Urban and EBC-Materials: Producer must demonstrate complete thermal elimination of wood preservatives by the pyrolysis conditions applied. Synthetic binder, coatings and/or plastic contamination must in total not exceed 1% and 10% for EBC-Urban and EBC-Materials/EBC-Basic, respectivly. More frequent analysis on PCDD/F and heavy metals may be specified in the operating manual if necessary. | |
| | Residues from industrial biomass processing | R-07 | | (<) | (>) | (<) | (<) | (~) | Each individual feedstock needs to be evaluated by Carbon Standards, and a special permit issued regulating additives, processing, controlling. R-07 feedstock are only permitted with the process assessment signed by Carbon Standards. |
| | Paper fibre sludge | R-09 | | ✓ | √ | ✓ | √ | ✓ | Only from chemically untreated (wood) fibers, a pollutant analysis of the paper fiber sludge must be available. |
| | Municipal organic waste | R-10 | | | | | (<) | (<) | Plastic contamination must in total not exceed 10%. More frequent analysis on PCDD/F and heavy metals may be specified in the operating manual if necessary. Pyrolysis conditions must exceed 500 °C for 3 min at minimum to eliminate biological hazards and micropollutants. Individual approval required upon application to CSI. For this purpose, a dossier must be submitted on the origin, composition and legal status of the waste. |
| Kitchen and can- teen waste | Kitchen, canteen and restau- rant residues | K-01 | | | √ | √ | ✓ | ✓ | Contamination by plastic must not exceed 1% (10% for EBC-Materials and EBC-Basic, individual approval needed). |

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|--|--|------|----------------------------|---------------------|----------|-----------|---------------|-----------|--|
| | Material from washing, cleaning, peeling, centrifug- ing and separation processes | N-01 | | ✓ | √ | ✓ | ✓ | √ | The soil or sand content is considered an additive and must not exceed 10% of the DM. |
| | Pomace, kernels, husks, grist or press residues (e.g. from oil mills, spent grains) | N-02 | √ | √ | √ | √ | √ | √ | |
| | Expiered food residues | N-03 | | √ | √ | ✓ | ✓ | ✓ | Only vegetable food. Contamination by plastic must not exceed 1% (10% for EBC-Materials and EBC-Basic, individual approval needed). |
| | Manufacturing residues from the production of canned food | N-04 | | √ | √ | √ | √ | √ | only pure vegetable residues |
| Food non-continu | Residues from spices and seasoning | N-05 | ✓ | √ | √ | √ | √ | √ | |
| Food processing residues on vegetable basis, | Residues from potato, corn or rice starch production | N-06 | ✓ | ✓ | √ | ✓ | ✓ | √ | |
| from food industry | Fruit, grain and potato mashes, alcohol distillery residues | N-07 | | ✓ | √ | √ | √ | √ | |
| food wholesale, supermarkets, convience stores etc. | 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 | | ✓ | ✓ | ✓ | ✓ | ✓ | Eligibility for Global Biochar C-sink must be reviewed separately, carbon from peat must not be credited. |
| | Residues from the processing of coffee (e.g. silver skin), cocoa (e.g. press residues) or tea. | N-16 | √ | √ | √ | √ | √ | ✓ | |
| | Screenings, floating debris, mowed material | W-01 | | √ | √ | √ | √ | √ | Contamination by plastic must not exceed 1% (10% for EBC-Materials and EBC-Basic, individual approval required). |
| Water mainte- nance & vegetal marine biomass | Aquatic plants and algae | W-02 | (<) | √ | ✓ | √ | √ | √ | For EBC feed: only from aquaculture or special collections of aquatic plants to strictly avoid contamination. Particular caution is required in the case of contaminated water. |
| | | | | | | | | | Systems that do not have direct control over water quality require special approval from CSI and a certificate of origin |
| Textilbereich | Cellulose, cotton and plant fibers | T-01 | | √ | √ | √ | √ | √ | The content of synthetic fibers must not exceed 1% (10% for EBC-Material and EBC-Basic, individual approval needed). For EBC-AgroOrganic, the fibers must not be dyed or otherwise |
| | Fibers of hemp, sisal, etc. | T-02 | | ✓ | ✓ | ✓ | ✓ | | chemically treated. |

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| | Plant-based digestate | AD-01 | | (<) | √ | √ | √ | √ | Digestate from anaerobic digestion of deliberatly produced biomass, agricultural residues and/or well-defined, non-contaminated residues from biomass processing. For EBC-AgroOrganic, only digestate from agricultural biomasses or biomasses approved for EBC-AgroOrganic production. |
| | Manure digestate | AD-02 | | | ✓ | ✓ | ✓ | √ | EU: digestate should have passed an end-point as an animal by-product according to Commission Delegated Regulation (EC) 2023/1605. If the digestate is still considered an animal by-product, the pyrolysis unit must be approved as an end point for of animal by-products (Regulation (EC) No 1069/2009). |
| Anaerobic Diges- tion | Animal by-product digestate | AD-03 | | | √ | √ | √ | √ | Biochar from AD-03 must present an H/Corg ratio < 0.4 to guarantee the elimination of biological hazards and micropollutants. EU: digestate should have passed an end-point as an animal by-product according to Commission Delegated Regulation (EC) 2023/1605. If the digestate is still considered an animal by-product, the pyrolysis unit must be approved as an end point for of animal by-products (Regulation (EC) No 1069/2009). |
| | Digestate from secondary plant biomass | AD-04 | | ✓ | √ | √ | √ | √ | Feedstock may contain organic fractions of municipal waste, secondary biomass from public collection places, etc. but must not contain sewage sludge. Contamination of the digestate by plastic must not exceed 1% (10% for EBC-Materials and EBC-Basic, individual approval needed). |
| Sludges from wastewater treat- ment | Sludge from municipal wastewater treatment ("bio- solids") | WW-01 | | | | | | ✓ | Includes untreated, aerobically stabilized and/or anaerobically digested municipal sewage sludge. Biochar from WW-01 must present an H/Corg ratio < 0.4 to guarantee the elimination of biological hazards and micropollutants. Regular analysis of the feedstock (heavy metals, chlorine etc.) may be specified in the operating manual. More frequent biochar analysis on PCDD/F and heavy metals of may be specified in the operating manual. |
| | Sludge from other wastewater treatment | WW-02 | | | | | | | Individual approval required upon application to CSI. For this purpose, a dossier must be submitted on the origin and composition of the sludge, as well as any contaminants it contains. The exact scope is determined by CSI in each individual case. |
| | Bones | AB-01 | | | √ | ✓ | ✓ | √ | Biochar from AB-01 must present an H/Corg ratio < 0.4 to guarantee the elimination of biological hazards and micropollutants. EU: the feedstock must have passed an end-point as an animal by-product according to Commission Delegated Regulation (EC) 2023/1605. If the feedstock is still considered an animal by-product, the pyrolysis unit must be approved as an end point for of animal by-products (Regulation (EC) No 1069/2009). Non-EU: National annex to the EBC may define futher criteria, otherwise a dossier on national regulation on handling of animal by-products must be provided. |
| Animal by-products | Manures | AB-02 | | | ✓ | ✓ | ✓ | ✓ · | Biochar from AB-02 must present an H/Corg ratio < 0.4 to guarantee the elimination of biological hazards and micropollutants. EU: the feedstock must have passed an end-point as an animal by-product according to Commission Delegated Regulation (EC) 2023/1605. If the feedstock is still considered an animal by-product, the pyrolysis unit must be approved as an end point for of animal by-products (Regulation (EC) No 1069/2009). Non- EU: National annex to the EBC may define futher criteria, otherwise a dossier on national regulation on handling of animal by-products must be provided. |
| | Other animal by-products | AB-03 | | | (<) | (<) | (<) | (✓) | Biochar from AB-03 must present an H/Corg ratio < 0.4 to guarantee the elimination of biological hazards and micropollutants. Individual approval required upon application to CSI. For this purpose, a dossier must be submitted on the origin, composition and legal status of the animal by-product. EU: the feedstock must have passed an end-point as an animal by-product according to Commission Delegated Regulation (EC) 2023/1605. If the feedstock is still considered an animal by-product, the pyrolysis unit must be approved as an end point for of animal by-products (Regulation (EC) No 1069/2009). Non-EU: National annex to the EBC may define futher criteria, otherwise a dossier on national regulation on handling of animal by-products must be provided. |

| Additives | | | | | | | | | | |
|------------------------------------|-----------------------------|------|----------------------------|---------------------|--------------|-----------|---------------|-----------|--|--|
| Group | Feedstock | ID | EBC-FeedPlus & EBC-Feed | EBC- AgroOrganic | EBC-Agro | EBC-Urban | EBC-Materials | EBC-Basic | Special requirements and notes | |
| | Lime | Z-01 | | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | Bentonite | Z-02 | | ✓ | \checkmark | ✓ | ✓ | ✓ | | |
| | Rock powder | Z-03 | | ✓ | \checkmark | ✓ | ✓ | ✓ | | |
| | Argile | Z-04 | | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | Clay | Z-05 | | ✓ | \checkmark | ✓ | ✓ | ✓ | | |
| | Soil | Z-06 | | ✓ | \checkmark | ✓ | ✓ | ✓ | | |
| mineral and or- ganic additives | Wood- und plant ashes | Z-07 | | < | ✓ | ✓ | ✓ | √ | Only certified ashes. Approved are RAL-quality (Bundesgütegemeinschaft Holzasche, Germany) ash. Further ashes on request. The instruction manual may include additional analyses and limit values for ash (for Switzerland). | |
| | Biogenic Oils | Z-08 | ✓ | ✓ | √ | ✓ | ✓ | ✓ | Only organic oils. Mineral oils are not permited. | |
| | Biochar | Z-09 | ✓ | ✓ | ✓ | ✓ | ✓ | √ | Only EBC-certified biochar of the corresponding certification class. | |
| | Biochar from own production | Z-10 | (<) | (<) | (✓) | ✓ | ✓ | √ | Biochar from the start-up and shutdown of the own production plant, produced from the same feedstock as the registered batch, may be mixed with the regular feedstock of the batch and pyrolyzed again. For EBC-Feed and EBC-Agro classes, new EBC analyses may be required. | |

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

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. All decisions are justified and published on the Carbon Standards website.