



Compostable French Fry Fork

Designed for the biological cycle, compostable under natural conditions, based on natural biopolymers - these are the plastic-free French fries forks developed as a prototype by traceless materials & Gastro Team Bremen on the occasion of Tempelhof Lab.

Benefits and Future Potentials

Conventional disposable tableware^[1] made of plastic

Compostable disposable tableware^[1] made of traceless

Exploited Sustainability potential

Future Sustainability potential



Carbon Management

~1,65 g savings

Per kg of material ~ **1.65 kg CO₂** saved - among other things through the use of biomass as raw material, meaning that grain residues are used instead of extra cultivated wheat.

Larger, energy-autonomous production plants for the material can further improve the CO₂ balance.



Water Demand

~ 100 ml savings

Per kg of material ~ **100 L of water** saved - among other things by using biomass from production residues.

Process optimization in the in the value chain, especially in the food industry, can further reduce water demand.



Energy Demand

~ 46,8 MJ savings

Per kg of material ~ **46.8 MJ energy** saved - due to an efficient production process, among other things.

Larger, energy-autonomous production facilities for the material can further reduce energy demand.



Material Health



Material and the production process are completely material healthy and **free from potentially harmful substances**. The material does not contain aldehydes and phthalates.

No further need for optimization.



Biodiversity



Compared to bioplastics or wood, biodiversity is protected - by using **plant production residues^[2]** there is no conflict of food and no need to cut down trees.

Use of biomass from purely organic or regenerative farming can further increase the protection of biodiversity.



Circularity



According to the manufacturer, the material is 100% compostable under natural conditions^[3] in **2 to max. 9 weeks**. A possible contribution to plastic pollution is avoided.

The expansion of compostable products in the catering industry (trays, cups) can further reduce the amount of plastic in the environment.

1 | Values per fork (~1g)
2 | Natural biopolymers from agricultural industry residues
3 | Does not require a separate composting facility