

RECYCLED PAPER: LCA WINNER

Steinbeis Papier GmbH info sheet

The Federal Environment Agency's updated life cycle assessment of graphical papers again concludes that recycled paper performs better than any virgin paper in terms of clearly defined parameters.

Recycled paper versus virgin paper in general: here are the savings in the production process according to the Federal Environment Agency's life cycle assessment:

- 78 percent water
- 68 percent energy
- 15 percent carbon emissions

ReThinkingPaper from Steinbeis Papier versus virgin papers: savings in the production process:

- 79 percent water
- 73 percent energy
- 42 percent carbon equivalent emissions

Steinbeis Papier thus achieves potential savings that even exceed the general life cycle assessment figures published by the Federal Environment Agency.

Evaluation basis

One tonne of office paper was taken as the basis for the LCA's measurements. This includes upstream chains and production up to the time of delivery from the factory. The two paper types have different production processes:

- Virgin paper: deforestation, pulp production and paper production.
- Recycled paper: waste paper collection and sorting, waste paper recycling and paper production.

A series of indicators were defined with which to investigate ecological compatibility in the production of the two paper types: Climate change, acidification, terrestrial eutrophication, aquatic eutrophication, freshwater demand, adsorbable organic halides, energy demand (non-renewable, renewable, not including commodity energy, total), photo-oxidation formation, particulates and ozone depletion.

Environmental impacts in the production process

The investigation focused especially on environmental impacts in the production process, including the upstream chains up to the point of delivery at the factory gate (cradle-to-gate). And Steinbeis Papier's plant in Glückstadt is especially efficient in this respect:

- Circular economy principle in recycled paper production
- Mostly closed water circuits, wastewater treated in the factory's own fully biological treatment plant.
- Modern fluidised bed technology and combined heat and power cover 100 percent of the plant's thermal and 50 percent of its electrical energy needs.

Result

In its new life cycle assessment, the Federal Environment Agency concludes once again that the production of graphical paper made from recycled fibres is much more environmentally friendly than making paper from new wood fibres. The new study incorporated additional qualitative aspects such as biodiversity, land use change and carbon storage in forests. When Steinbeis Papier makes its recycled paper, not a single new tree is felled, because it only uses waste paper. That's why, by choosing recycled paper, you help maintain biodiversity, reduce negative land use and ultimately protect the climate.