





ENVIRONMENTAL PRODUCT DECLARATION AND LIFE CYCLE ASSESSMENT

The EPD is based on a Life Cycle Assessment (LCA), which is used to quantify environmental impacts through material and energy flows. The LCA was prepared in accordance with the requirements of DIN EN 15804, DIN EN ISO 14040, DIN EN ISO 14044 and EN ISO 14025.

With a Life Cycle Assessment, the potential environmental impacts and influences associated with the products over their entire life cycle (raw material supply, manufacture, use and end of life) can be identified and presented.

Primarily, EPDs are used as a verification for sustainability certification systems for buildings, e.g. DGNB or LEED. In addition, they facilitate standardised communication on the environmental performance of products.

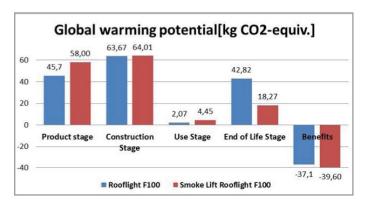
SELECTED RESULTS AT A GLANCE

All declared environmental impacts correspond to EN 15804. Indicators on resource use, output flows and environmental impacts can be found in the full version of the EPD.

Global warming potential (GWP)

The deciding factor for the GWP can be found in the manufacturing and construction phase. During production stage, the environmental impacts of the required raw materials (especially plastics) dominate. The construction stage shows a high share in the GWP. This can be explained by the high proportion of wooden packaging and subsequent thermal recycling. Another contribution to the GWP is made by the life cycle stage disposal, caused by thermal use of the plastic parts used in the products. The GWP of the use stage is based on cleaning, maintenance, repair and replacement processes. The products receive benefits from the energy generated in recovery processes and for the savings in raw materials caused by recycling processes. Benefits mainly originate from the return of metals.

Higher values for the smoke lift variant result from the higher share in energy-inensive metallic components.

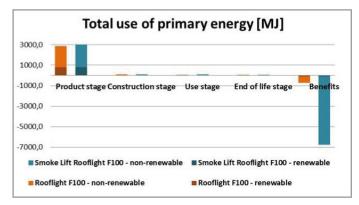


Other environmental impacts

The construction stage does not show high impacts on other environmental impact categories. Here the production stage dominates with different materials.

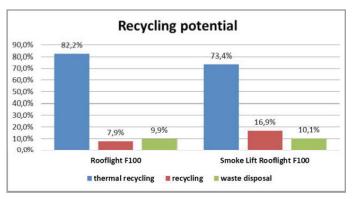
Use of energy

The total use of primary energy is determined by the production stage, in this case mainly by the production of neccessary raw materials. Energy for producing the components for replacement and maintenance during the use stage plays a secondary role. As already seen in the GWP, benefits mainly derive from the recycling of metallic components.



Recycling potential

Recycling potential can be explained as the share of the product, which can be recycled or reused thermally resp. can be disposed after approriate treatment. As the considered products show a high share of plastic, the recycling potential is shifting strongly in the derection of thermal recycling.



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