





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.

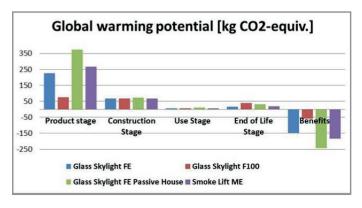
SELECTED RESULTS AT A GLANCE

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 phase, especially in the production of required raw materials (in particular aluminium and insulation glass). The life cycle phases construction and end of life also contribute to the GWP, caused by thermal recycling of wooden packaging materials (within the frame of the construction stage) and thermal use of glassfibre- reinforced plastic parts (within the frame of the end of life stage). 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. As most of the materials are recycled, the GWP for end of life stage is relatively low.

Higher values for Glass Skylight FE Passive House result from the higher product masses and by a higher share in energy-intensive raw materials.

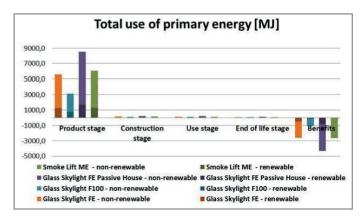


Other environmental impacts

The environmental impacts of the individual life stages are relatively uniform in all environmental categories. Regarding Glass Skylight F100 the packaging has a higher influence on the environmental impacts.

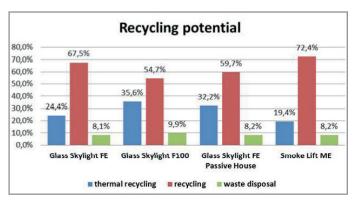
Use of energy

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



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 appropriate treatment. As the considered products have a high share of glass and aluminium, the recycling potentials are high.



Next revision: 13.05.2024