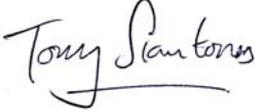


## Trimo SNV1000 – Product Carbon Footprint

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## Executive Summary

### *Project Overview*

This Product Carbon Footprint Report measures the climate change impact of 1m<sup>2</sup> of an 'average' insulated panel manufactured by Trimo (SNV1000) in 2007. Trimo manufacture and supply fireproof rock-fibre cladding panels for prefabricated steel buildings. The SNV1000 represents an average size panel in terms of thicknesses of materials, which comprise of polyethylene, steel, mineral wool, and polyurethane. SNV1000's carbon footprint was assessed according to the Planet Positive Product Methodology, using a streamlined Life Cycle cradle to grave assessment developed in line with ISO 14044.

### *Methodology*

Measurement took place according to the Planet Positive Protocol Product Carbon Footprint Methodology, based on ISO 14044:2006 - Environmental management - Life cycle assessment. The assessment covers all raw materials from cradle to factory gate, delivery to factory, factory activities and end of life management of products.

The functional unit to be reported on is 1m<sup>2</sup> of SNV1000 including all packaging, based on a 30 year lifetime, in the calendar year of 2007.

### *Results – Carbon Calculation*

Over this period and boundary, a total of **726.8** tonnes of CO<sub>2</sub>e were emitted from cradle to grave, translating to **79.4** kg CO<sub>2</sub>e per m<sup>2</sup> of SNV1000 panel.

**726.8** tonnes of CO<sub>2</sub>e is roughly equivalent to one person flying 1,500 times round trip from Ljubljana to London. **79.4** kg of CO<sub>2</sub>e is roughly equivalent to one person one way from Ljubljana to Rome.

This split is demonstrated in figure 1 on the next page.

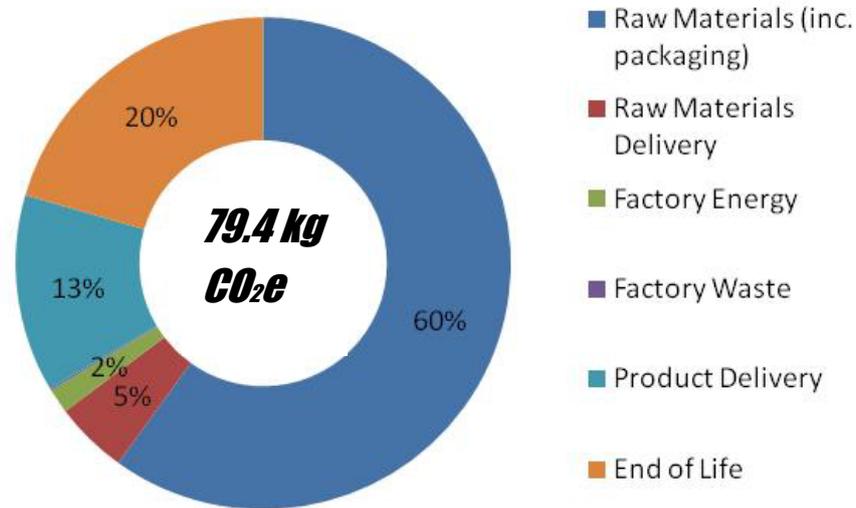


Figure 1 - Carbon emissions based on lifecycle stage

### Results – Carbon Reductions

Opportunities for GHG reductions in the embodied carbon footprint, in order of priority, include:

- Consider using low carbon alternatives to mineral wool insulation, such as sheep’s wool or hemp.
- Engage your supply chain (steel coil and steel billet manufactures) to make reductions in their energy use and waste, or source from suppliers who are currently adopting these practices already.
- Initiate a take back scheme giving incentives for customers to recycle the panels.
- Design Trimo panels with end of life in mind, whereby it becomes easier to reclaim materials during demolition.
- Ensure that vehicles operate to the most recent emissions standards (for example, EURO 4 and 5 standards in the European Union).
- Improve on site energy management in the first instance with a view to switch all energy to renewable will help reduce this.

## ***Recommendations***

### *Strategic Level*

It is important to remember that carbon is but one sustainability impact among many, which range from ecotoxicity and eutrophication to ethical sourcing and cost effectiveness. Overall, driving down carbon is a single factor in sustainable procurement, for which strategic recommendations are as follows:

- Integrating overall Trimo's sustainability priorities and principles into a procurement policy for products. This can include sustainable sourcing workshops and decision-making frameworks for procurement, product and sustainability managers.
- Setting timetabled, prioritised targets. Sustainable procurement is commonly achieved slowly, and this report can be used as a proxy to the most environmentally harmful materials and how to target reductions against them.
- Integrating requirements for Environmental Product Declarations (EPDs) or product carbon footprints for prioritised materials as part of the tender process. EPDs are certified life cycle assessments for products ensuring a high quality study and supplier specific emission factors. This requirement can equally demand on site environmental management for all suppliers, such as the measurement and active reduction of water, energy, carbon and waste.

### *Product Level*

Following the steps set out at a strategic level, the following product level recommendations are made:

- For products still at the design and specification stage, full consultation should be undertaken with the design team for sustainable materials. This enables decisions to be fully informed and confidently reported upon.
- Learning and data from this assessment should be rolled onto other product to ensure continual sustainability improvements are visible within each new product.
- Future LCAs should cover individual Trimo products in order to compare their environmental impacts with other.

Sensitivity analyses demonstrated that the project had a +27 / -15 percent error range, making the final carbon footprint 79.4 (+21.4 / -11.9) kg.