



CARBON FOOTPRINT INFORMATION

INCADA®
2011

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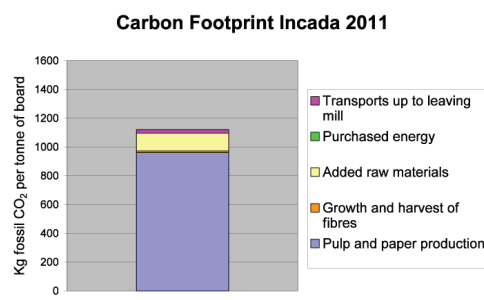
Based on data from the period 2011-01-01 to 2011-12-31

Company: Iggesund Paperboard AB
Site: Workington Mill
Product: Incada family

CARBON FOOTPRINT

Iggesund Paperboard calculates the Carbon Footprint of its mills based on the ten elements ("toes") and the guidelines given in the CEPI publication "Framework for the development of carbon footprints for paper and board products". The framework is available at www.cepi.org

The carbon footprint is updated annually and based on average figures from the previous year. The footprint is calculated per mill.



THE TEN ELEMENTS OF THE CEPI FRAMEWORK

| | | FOSSIL CO ₂ (kg/tonne board) | BIOGENIC CO ₂ (kg/tonne board) |
|----------|--------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------|
| 1 | Carbon sequestration in forests | | -228 |
| 2 | Carbon in forest products | | |
| | NET SEQUESTRATION OF CO₂ | | -228 |
| 3 | Emissions associated from product manufacturing facilities | 961 | |
| 4 | Emissions associated with producing fibres | 12 | |
| 5 | Emissions associated with producing other raw materials and fuels | 124 | |
| 6 | Emissions associated with purchased electricity, steam and heat | 0 | |
| 7 | Transport related emissions, excl. transport to customer | 24 | |
| | TOTAL EMISSION FOSSIL CO₂ ELEMENTS 3-7 | 1121 | |
| 8 | Emissions associated with product use | N.A. | |
| 9 | Emissions associated with product end-of-life | N.A. | |
| 10 alt.1 | Avoided emissions, estimate of maximum potential | -1200 | |
| 10 alt.2 | Avoided emissions, estimate based on European average of incineration of paperboard waste. | -192 | |

COMMENTS AND EXPLANATIONS TO THE TEN ELEMENTS OF THE CEPI FRAMEWORK

| | | |
|----|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Carbon sequestration in forests | Growing forests sequester carbon. The quoted figure is calculated by dividing the net CO ₂ sequestration in Holmens own Forests by yearly tonnage produced of all Holmen products.* |
| 2 | Carbon in forest products | Biogenic carbon stored in the products. Not considered applicable due to time scale well below 100 years. This carbon content is accounted for in toe 10, avoided emissions. |
| 3 | Emissions from product manufacturing facilities | Fossil CO ₂ emissions from combustion of fossil fuels during pulp and paperboard production, including purchased pulp. Iggesund Workington will eliminate the use of all fossil fuels used in energy production on completion of their current biofuel project. |
| 4 | Emissions associated with producing fibres | Fossil CO ₂ emissions from forest management and harvesting. |
| 5 | Emissions associated with producing other raw materials and fuels | Fossil CO ₂ emissions from production of non-wood based raw materials and fuels. |
| 6 | Emissions associated with purchased electricity, steam and heat | Fossil CO ₂ emissions associated with purchased electricity. |
| 7 | Transport related emissions, excl. transport to customer | Fossil CO ₂ emissions from transport of harvested wood, purchased pulp and other raw materials. Transport to customer is not included as this varies strongly from case to case dependent on transport mode and distance. The emissions related to transport to customer can on request be calculated separately for specific cases. |
| 8 | Emissions associated with product use | Not applicable for Iggesund Paperboard as a board producer. |
| 9 | Emissions associated with product end-of-life | Not applicable for Iggesund Paperboard as a board producer. |
| 10 | Avoided emissions | Avoided emissions of fossil CO ₂ by incinerating paperboard waste with energy recovery, which can be viewed as replacing oil as fuel. Alt.1 is the maximum potential, if 100% of the board is incinerated. Alt.2 has been calculated using an estimated European average: 16% of the board waste will be used for incineration. ** |

* Based on Holmens own forests. Calculated with the assistance of Skogforsk, The Forestry Research Institute of Sweden, and the Swedish University of Agricultural Sciences.
** IWL: Carbon Footprint of Cartons in Europe, 2010.