



CARBON FOOTPRINT INFORMATION

INCADA®

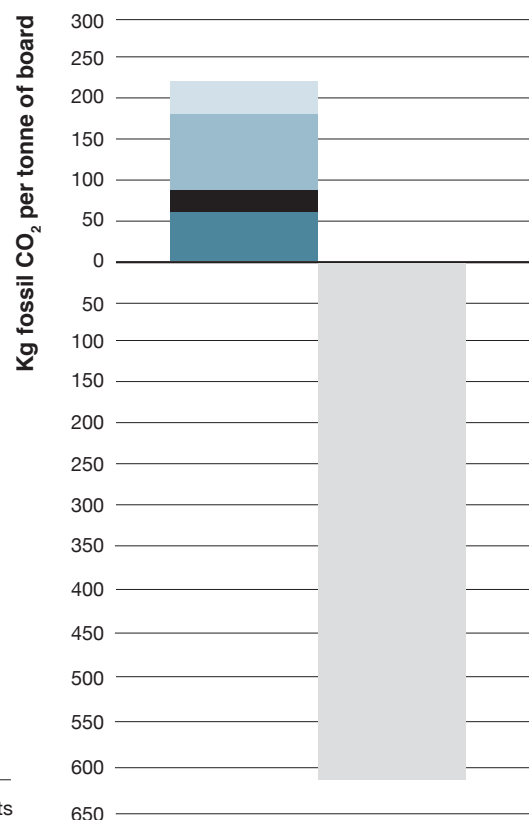
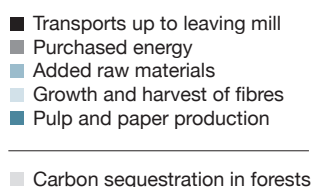
2017

Company: Iggesund Paperboard  
 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](http://www.cepi.org). The carbon footprint is updated annually and based on average figures from the previous year.



## The ten elements of the CEPI Framework

		<b>FOSSIL CO<sub>2</sub> (kg/tonne board)</b>
1	Carbon sequestration in forests	-615*
2	Carbon in forest products	N.A. See below
	<b>Net sequestration of CO<sub>2</sub></b>	<b>-615</b>
	<b>*Biogenic CO<sub>2</sub> (kg/tonne board)</b>	
3	Emissions from product manufacturing facilities	188
4	Emissions associated with producing fibres	14
5	Emissions associated with producing other raw materials and fuels	89
6	Emissions associated with purchased electricity, steam and heat	0
7	Transport related emissions, excl. transport to customer	26
	<b>Total emission fossil CO<sub>2</sub>, elements 3-7</b>	<b>366</b>
8	Emissions associated with product use	N.A. See below
9	Emissions associated with product end-of-life	N.A. See below
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	-328
10 alt.3	Avoided emissions due to sale of renewable power from site	-287

## 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 <sub>2</sub> 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 element 10, avoided emissions.
3	Emissions from product manufacturing facilities	Fossil CO <sub>2</sub> emissions from combustion of fossil fuels during pulp and paperboard production, including purchased pulp. Iggesund Workington has significantly reduced the use of fossil fuels in energy production by Installing a dedicated Biomass fuelled (CHP) Plant.
4	Emissions associated with producing fibres	Fossil CO <sub>2</sub> emissions from forest management and harvesting.
5	Emissions associated with producing other raw materials and fuels	Fossil CO <sub>2</sub> emissions from production of non-wood based raw materials and fuels.
6	Emissions associated with purchased electricity, steam and heat	Fossil CO <sub>2</sub> emissions associated with purchased electricity.
7	Transport related emissions, excl. transport to customer	Fossil CO <sub>2</sub> 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 <sub>2</sub> 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. **  Alt.3 is based on actual sales of renewable power Jan-Dec 2017

\* Based on Holmen's 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.