



ENVIRONMENTAL DECLARATION

INCADA®

2018

Environmental Declaration 2018

Based on data from the period 2018-01-01 to 2018-12-31

| | |
|-------------------|---|
| Product: | Incada family, 200-350 gm ² |
| Site and company: | Workington Mill and Iggesund Paperboard |
| Paper type: | Folding box board, virgin fibre |

Product composition

| | |
|-----------------|---|
| Mechanical pulp | 46-73 % of which 100 % produced at the site |
| Chemical pulp | 16-26% of which 0 % produced at the site |
| Coating | 6-14 % of which 100 % produced at the site |

Sourcing of energy

On site dedicated biomass fuelled Combined Heat and Power (CHP) Plant. Surplus renewable electricity is sold to the national grid.

| | |
|------------------|----------------|
| Electricity used | 1094 kWh/tonne |
|------------------|----------------|

Environmental load

Production site process water use, waste water discharges, atmospheric emissions and solid waste per tonne products in year 2018 (total environmental load of the production of pulp and board produced at the site divided with total production of board).

| Emissions to water | |
|---------------------|-------------------------|
| COD | 42.0 kg/t |
| AOX | none |
| Nitrogen | 0.17 kg/t |
| Phosphorus | 0.022 kg/t |
| Process waste water | 28.90 m ³ /t |

| Emissions to air | |
|---------------------------------------|-------------|
| SO ₂ (total) | 0.05 kg/t |
| NO _x | 1.16 kg/t |
| CO ₂ (from fossil sources) | 113.28 kg/t |

| Waste to landfill |
|-------------------|
| 0.37 kg/t |

Handling after use of the product and its packaging

Product and packaging recoverable as a material or energy resource. Incada is intrinsically biodegradable. For quantification regarding composting test should be made on the final packaging after the converting process (EN 13432:2000)

Environmental management

The environmental management system is certified to ISO14001:2015 LRQA 10139473. The mill operates all processes with an environmental licence (BJ7590) issued, under the Environmental Permitting (England & Wales) Regulations 2010, by the Environment Agency. All fibrous raw materials are purchased from well managed forests, with independent verification according to FSC. Incada products are available with FSC Chain of Custody certification according to the mix category.

Product composition

The chemical and mechanical pulp (ECF) used in the production of Incada assures a good hygienic standard as well as taint and odour neutrality. The coating consists of calcium carbonate, clay and a binding agent in various combinations dependant on the end products property requirements and intended use.

Sourcing of energy

Both thermal and electrical energy are used in paper-board manufacture. More than 95% of the thermal energy – the steam – that powers the mill is produced from biofuel. The electricity purchased by the mill supplies 10% of the mill's total energy requirements. The mill is planning to eliminate all fossil carbon dioxide emissions and to become self sufficient on electricity.

Emissions to water

The Workington mill is situated on the UK west coast. The mill's compliance with all the emission levels set by the UK authorities is monitored by the continuous measurement of discharge levels. Studies of the marine ecosystems around the mill are also made to ensure their balance is not disturbed.

COD

Chemical Oxygen Demand is a surrogate measurement of the amount of oxygen consumed in the environment resulting from the decomposition of organic compounds. The presence of wood extractives and carbohydrates resulting from the pulping process form the main contribution to COD levels. The UK licensing authorities set emissions based on COD levels that are suited to local conditions and the marine environment adjacent to the mill.

AOX

These are adsorbable organic halogens produced during the pulp manufacturing process. High levels of AOX negatively affect marine organisms. The process used in the manufacture of mechanical pulp at Workington does not give rise to AOX.

Nitrogen and phosphorus

Nitrogen and phosphorus are elements that when present in large amounts contribute to the overfertilisation (eutrophication) of marine environments.

Process water discharge

The Workington mill is geographically located in an area of abundant water supply and there is no shortage of availability. All process water is re-circulated and re-used within the process a number of times. Before final discharge to the open sea process water is treated according to a standard agreed with the authorities.

Emissions to air - SO₂ and NO_x

These normally arise from combustion processes used in the production of energy. They contribute to eutrophication, acidification and the creation of ground-level ozone. All emissions are regulated and monitored by the UK licensing authorities.

CO₂ (from fossil sources)

Carbon dioxide is a naturally occurring gas but increasing emissions from fossil fuels are contributing to global climate change. This value indicates the emission of fossil CO₂ from the production of Incada. All energy used will be pre-dominantly from renewable sources resulting in reduced CO₂ emissions. This value should not be confused with the far broader concept of carbon footprint which encompasses much of the products lifecycle. For information about Incada's carbon footprint please contact an Iggesund representative in your market or visit www.iggesund.com.

Waste to landfill

Sending waste to landfill creates an unsustainable stress on local landfill facilities and is a growing environmental problem. In the production of Incada we have systematically reduced our process waste to zero, with the very small balance coming from other mill activities where this waste cannot be reused or recycled.

Land use / land use change

The wood raw material for the Incada product is sourced from forest lands which are replanted with trees to grow new forest. Therefore Incada manufacture doesn't contribute to any land use change or deforestation.

Water supply

All water used in the manufacture of Incada is locally sourced from the River Derwent. The water used is surface water and not drinking water (ground water). After use the water is cleaned and let out to sea close to the River Derwent estuary area of the Solway Coast.

Certifications

Mill's environmental certificates: FSC TT-COC-002067
TT-CW-002067
ISO 14001 : 2015 LRQA 10139473

<https://www.iggesund.com/en/sustainability/our-certificates/>

Methods

Certification scheme

FSC® Volume credit system

Method

All FSC certified deliveries contain 100 % certified fibre

Wood supply

All the mechanical pulp used in the production of Incada is produced onsite from locally sourced UK grown spruce.

Wood sourcing information, Workington 2018

| Type of wood | Country of origin | % | Procurement region | Species | Forest owners | Certificates |
|--------------|-------------------|----|------------------------------|------------------|---|--|
| Softwood | UK | 60 | Northern England Scotland | picea sitchensis | Forest Commissions and private growers | SGS-FM/COC-010297 SGS-FM/COC-010301 |

Pulp supply

All of the chemical pulp used in the production of Incada is manufactured from pine and spruce supplied by our sister mill Iggesund's Bruk in Sweden and plantation eucalyptus from approved mills in Iberia and South America.

Pulp Sourcing Information, Workington 2018

| Type of wood | Country of origin | % | Procurement region | Species | Forest owners | Certificates |
|--------------|-------------------|----|--------------------|------------|-----------------------------------|-----------------|
| hardwood | Chile | 19 | Chile | eucalyptus | Private companies | RA-COC-006571 |
| softwood | Sweden | 11 | Central Sweden | pinus spp | Home owned and private growers | TUEV-COC-000232 |
| hardwood | Portugal | 10 | Portugal | eucalyptus | Private companies | NC-COC-014433 |

Contact information

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