

National Carbon Offset Standard Carbon Neutral Program Public Disclosure Summary



An Australian Government Initiative

KNAUF PLASTERBOARD

BASE YEAR: 2016/2017

REPORTING PERIOD: 2016/2017

Declaration

To the best of my knowledge, the information provided in this Public Disclosure Summary is true and correct and meets the requirements of the National Carbon Offset Standard Carbon Neutral Program.

[Sign here] 	12th October 2018
George Mamic	
Sales Director	

Type of carbon neutral certification: product
Verification
Date of most recent external verification/audit: 12 th October 2018
Auditor: Carbon Intelligence
Auditor assurance statement link:



Australian Government
Department of the Environment and Energy

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1. Carbon neutral information

1A. Introduction

About Knauf Plasterboard

Knauf is a global leader in the manufacture and distribution of plasterboard, compounds, cornice, acoustic design solutions, steel and associated products and systems to the lightweight construction industry. With over 150 facilities globally, employing over 23000 people, Knauf uses the innovation derived from its global footprint to produce cutting edge, responsible products that have been used in iconic buildings all over the world.

In Australia, Knauf has plasterboard manufacturing facilities in Matraville (Sydney, NSW), Altona (Melbourne, VIC), Bundaberg (QLD), a metal roll forming production facility in Beenleigh (Brisbane, QLD), and over 300 employees. Knauf is a major supplier of high quality sustainable building materials to the light weight construction industry.

NCOS Product Certification

Knauf has created an opt-in carbon neutral program for metal products (Knauf Metal Range) manufactured in the Beenleigh Plant:

- Wall Framing Systems - Stud, Track, Track DH, Track, Flexible, Track Nogging
- Knauf Acoustic Stud
- Concealed Ceiling System
- Beads and Finishing Sections
- Clips and Accessories
- InterHome H stud (from 2017/2018 year)

These products may be used in both residential and commercial applications. The functional unit for NCOS carbon offsetting is per kg of product sold. No products were purchased under the opt-in program in 2016/2017.

Light weight metal framing systems are used within all types of residential and commercial construction, from homes through to offices, hospitals and schools. When used in combination with plasterboard, light weight metal framing delivers systems which can be used for fire resistance, for acoustic comfort, and to resist damage from impact in high performance areas. Stud and track is available in different profiles, lengths, and Base Metal Thicknesses (BMT), which are selected depending on project performance needs, and is sold in lineal metres (m).

Knauf Metal products are manufactured on different product lines, to meet specific product specifications. The products being certified are made out of BlueScope Zincolume® AM 150 steel (in G300 and G550 tensile strengths) BMT from 0.5 up to 1.15. BlueScope aluminium-zinc-magnesium metallic coated products are produced using a world-leading, patented coating technology delivering a better quality, longer lasting performance for ZINCALUME® AM150 steel. BlueScope products are known for their quality and reliability, which contribute to long life, durable buildings.

Product system description

The NCOS Carbon Account covers the following life cycle stages of Knauf metal products, and has been prepared in accordance with the NCOS standard, and National Greenhouse & Energy Reporting Scheme:

- Product stage: covering raw material supply and product manufacturing
- Product use: covering delivery to site, installation
- End of life: covering disposal and recycling.

The time period 1st July 2016 to 30th June 2017 is covered.

Raw material supply

This includes the steel production at Bluescope Steel from raw and recycled materials, including the extraction of raw materials and transport to the steel manufacturing site. Also included are the production of consumables used in the Knauf production process, coil slitting, and the transport by road of coil steel to coil slitters and from coil slitters to Knauf.

Product manufacturing

The manufacturing of the metal profiles starts with loading of metal coil to individual production lines, then forming, cutting and punching, stacking and packing of the products, and transfer into the warehouse. Grid electrical power is used to operate the production lines, and forklifts powered by diesel fuel move the coil and finished goods around the site.

Product use

Metal packs are then transported to the construction site by road transport (trucks). Knauf metal products are mostly installed manually with use of power tools. Ancillary materials such as screws are not included within the system. The use or in-service life of the product is not covered, as the installed system is a passive building product, requiring little maintenance.

End of life

This phase includes the transport of the metal at end of life to either recycling or to landfill, the processing of the steel scrap, and a benefit for the recycled steel at end of life is included.

1B. Emission sources within certification boundary

Quantified sources

The following emissions sources have been included:

- Upstream emissions resulting from raw materials (manufacture of steel);
- Gate to gate emissions:
 - resulting from manufacture and warehousing of metal products on Beenleigh site;
 - resulting from the operation of Knauf Beenleigh premises; such as overall site energy and water consumption;
- Downstream emissions:
 - resulting from transport of product to the customer;
 - resulting from the installation of the product; and
 - resulting from the reuse, recycling or final disposal of the product at end of life.

The main emissions sources relate to the consumption of energy upstream in the manufacture of the steel. Other energy sources are minor in usage in comparison. Emissions have also been included for business travel and company vehicles attributable to the scope of certification.

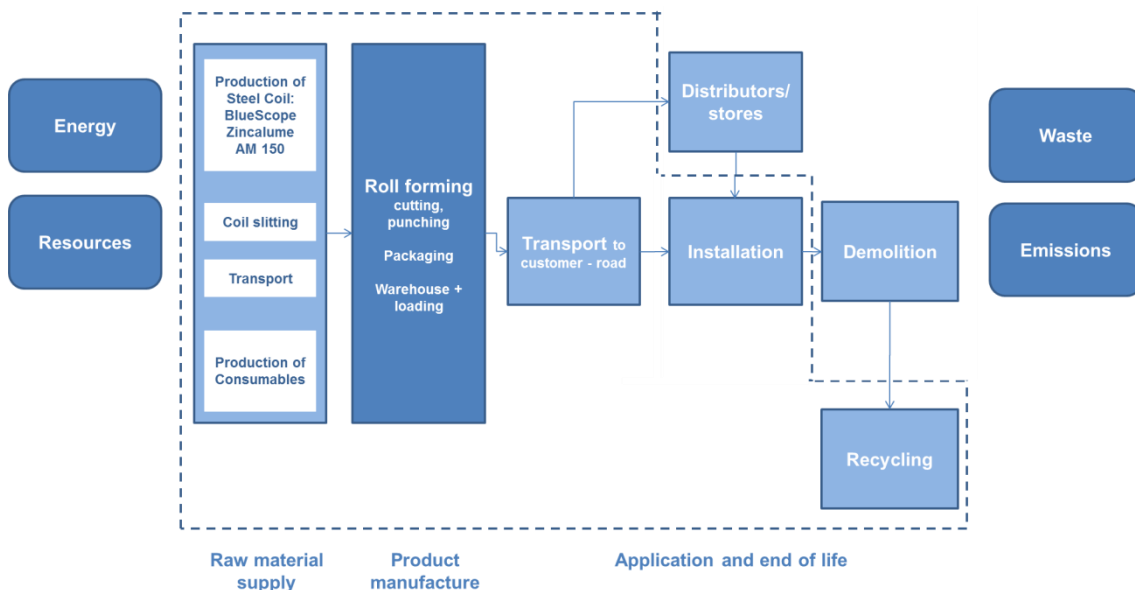
The carbon account covers the emissions from the six greenhouse gas types included under the Kyoto Protocol.

Non-quantified sources

The following emissions sources have not been quantified, as the impact of excluding these sources is not expected to materially affect the overall total emissions:

- Capital goods are not included: due to the long lifetime of plant and equipment used in the product manufacture, the emissions are likely to be negligible, and are also difficult to determine and allocate to a functional unit relative to their likely significance.
- Franchise and distributor store premises are not included: these premises are independently operated and emissions resulting from their operations are not fully attributable to the scope of certification.
- Some emission sources have been excluded as they are of low environmental significance or outside of operational control. This can include items such as employee travel to and from work (separate from company vehicles), and minor use of in plant materials such as welding gases.

1C. Diagram of certification boundary



2. Emissions reduction measures

2A. Emissions over time

No products were purchased under the opt-in carbon neutral program in the base year reporting period 2016/2017.

	2016/2017
Scope 1	No products were purchased under the opt-in carbon neutral program in the base year reporting period 2016/2017.
Scope 2	
Scope 3	
Total	

2B. Emissions reduction strategy

In terms of the actual manufacturing process cradle to grave, the largest component of the carbon account is due to the manufacture of the steel. Of the activities under Knauf operational control (or gate to gate), the most significant contribution to emissions from Knauf processes is the use of electricity in the rollforming stage.

Knauf's emission reduction strategy is to work on operational and behavioural reductions through training of personnel, and to invest where practicable in the most efficient manufacturing processes for local operations.

Energy efficiency is a key sustainability indicator for Knauf. Knauf reports energy and associated carbon emissions as relevant to the government via programs such as National Greenhouse and Energy Reporting, and is benchmarked internationally within the Knauf Group for energy consumption and efficiency. Knauf's Beenleigh, Matraville and Altona manufacturing facilities are independently certified to ISO 14001:2015 Environmental Management Systems, ISO 9001:2015 Quality Management Systems, and OHSAS 18001:2007 Health & Safety Management Systems.

2C. Emissions reduction actions

Knauf Metal has invested in energy efficiency improvements for its manufacturing facility in Beenleigh since 2015, which have achieved the following results:

Over 15% reduction in electricity consumption per tonne of product as a result of:

- Power Factor Correction equipment installed to optimise electricity usage
- PLC controlled Variable Speed Drives connected on all roll formers and compressors
- Lighting timers and LUX meters
- LED light replacement fitted throughout warehouse areas
- Skylight replacement panels installed
- Downsizing motor sizes on roll formers
- Reduction of hydraulic power packs and motor capacity on roll forming machines.

Distribution improvements:

- Increased utilisation rate for interstate trucks to 98%
- Reduced delivery mileage of customer orders by grouping runs
- Reconfigured yard to reduce forklift movements
- Higher tonnage throughput by forklifts
- Higher focus on selecting the best suited truck for coil orders (right-sizing of vehicle for utilisation)

- Adblue diesel additive used in new truck fleet to reduce emissions.

Waste reduction:

- Reduction of scrap metal from 0.6% to 0.35% due to implementation and improvement of operation processes, quality control systems, lean manufacturing initiatives and enhanced operator training
- Improved recycling: cardboard recycling commenced, and focus to improve scrap metal recycling.

3. Emissions summary

Table 2. Emissions Summary		
Scope	Emission source	t CO ₂ -e
1	Metal products purchased under the opt-in program Scope 1 Scope 2 Scope 3	nil
Total Gross Emissions		nil
GreenPower or retired LGCs		nil
Total Net Emissions		nil

4. Carbon offsets

4A. Offsets summary

Table 3. Offsets Summary			
Offset type and registry	Year retired	Quantity	Serial numbers
Gold Standard VER, Markit registry	n/a	nil	n/a
Total offsets retired			nil
Net emissions			nil
Total offsets held by Knauf in surplus for future years:			60 tonnes (one account) GS1-1-KE-GS886-16-2013-3495-1141 to 1200

4B. Offsets purchasing and retirement strategy

As this is an opt-in program, offsets will be purchased and retired at the end of the reporting period.

Knauf uses qualified providers of offsets, which will meet the NCOS standard requirements (such as Gold Standard VERs or Verified Carbon Standard VCUs). The process of purchase and surrender will be managed by the provider on behalf of Knauf. The purchase and surrender of offsets will be completed

within the reporting period requirement, that is, within four months of the conclusion of the reporting year. Knauf will select offsets based on the following criteria:

- A strong social responsibility aspect, such as improvements for communities and individuals
- Replace carbon intensive energy use with renewable energy sources
- Where possible, selection of Australian-based offsets meeting the above criteria.

4C. Offset projects (Co-benefits)

The offsets currently held in surplus for future years are for the Safe Water Provision LifeStraw program, in Western Province, Kenya.

LifeStraw offers a point-of-use water treatment solution and is the first program directly linking carbon credits with safe drinking water. The program intervenes at the small household level, creating one of the world’s largest carbon reduction projects. Benefits of the LifeStraw project:

- Expected to deliver an estimated 4.8 billion litres of safe drinking water annually to 4.5 million people for a period of at least ten years.
- Reduces incidence of waterborne diseases; statistically significant reduction in odds of diarrhoea, dysentery and severe dehydration among under-5s using it exclusively.
- Saves 1.5 million tonnes of wood from being burned each year, slowing deforestation among Kenya’s dwindling woodland, with 1.35 million tonnes of CO2 avoided in the first 6 months.
- Empowers Kenyans who can now filter their own drinking water. Women and children spend less time gathering and carrying firewood.
- Addresses 4 UN Millennium Development Goals: reducing child mortality; improving maternal health; combating diseases; and ensuring environmental sustainability.
- Thousands of jobs created locally to distribute filters and monitor usage during twice-yearly campaigns. User training provided upon installation.
- Regular visits continue every 6 months to ensure that the filters are in working condition and that each householder is happy using their filter.

5. Use of trade mark

Table 4. Trade mark register	
Where used	Logo type
Trademark use: Nil use in the reporting period for metal products. Example from the certified plasterboard products from Corporate Website: http://www.knaufplasterboard.com.au/carbon-neutral-program From which can be viewed the Brochure, Case Study.	