

# Steel – Hot Rolled Coil

## Environmental Product Declaration

In accordance with ISO 14025 and EN 15804



# epd



# Steel – Hot Rolled Coil

## Environmental Product Declaration

### Key Insights

#### Green Star EPD Compliance

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- As per EN 15804
- Independently verified
- Cradle-to-gate scope
- Product specific

#### Recycled Content

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##### Steel by BlueScope – Recycled Content\*

- 25% average recovered content, including
- Post-consumer recycled content: 8.5%
- Pre-consumer recycled content: 6.5%

#### Content declaration

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##### Product Content

The typical composition of hot rolled coil steel is:

Element	Typical Content
Iron	>98%
Manganese	<1.5%
Carbon	<0.2%
Other	<0.1% each

#### Recycling

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- 100% recyclable steel
- Recycling steel can reduce project costs
- Focus on design to maximise recycling





## BlueScope Steel Designed for Sustainability

### 1. Cloud Canopy; Maddison Architects; Melbourne, Victoria

A steel and glass canopy at Melbourne's iconic Federation Square pushes the boundaries of engineering and construction to create an "otherworldly" shelter. As well as providing shade for café patrons and directing pedestrians into the atrium beyond, the architects wanted the new insertion to read as a sculptural element. Utilising a system that could allow the canopy to touch the ground plane as lightly as possible, without relying on any of the surrounding buildings for support, the honeycomb shape provides for optimal solar performance, filtering dappled light through the glass for winter and shade for summer conditions.

### 2. Trades North; JCY Architects and Urban Designers; Clarkson, Western Australia

Trades North is a sensual expression of steel which both explores and celebrates the potential of the products used to give the building character and to express its purpose. The surging, split curved roof form of the complex is only possible using steel. Compared with alternative materials, COLORBOND® steel was found to be the most cost-effective, robust, easy to replace and durable material.

### 3. Westgate Freeway off-ramps; Melbourne, Victoria

The objective of this complex piece of engineering was to ease and simplify traffic congestion. At the heart of the project were fabricated beams installed over roads, tram tracks and businesses, using XLERPLATE® steel. Each steel beam length, and consequently the splice locations, was detailed in such a manner that allowed for easy transport of beams, keeping their weight within available crane capacity limits.



Photography: Damien Hatton



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# Steel – Hot Rolled Coil

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### Environmental Product Declaration – Steel – Hot Rolled Coil

This EPD sets out information on the average hot rolled coil steel product manufactured at the Hot Strip Mill at the BlueScope Port Kembla Steelworks. As the declared unit of 1 kilogram of steel is in mass and the steel product is consistent in composition, any variability in thickness or length has no bearing on the final assessment.

For standard steel grades, variability between content of different grades is insignificant compared to the outcomes of the LCA. However, if the product used is a specialised, highly alloyed grade, these results may not be representative. Contact BlueScope for clarification if this circumstance may apply.

This is a “cradle-to-gate with recycling” EPD. Other life cycle stages are dependent on how the product is used, and should be developed and included as part of holistic assessment of specific construction works.

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### Green Star EPD Compliance

- As per EN 15804
- Independently verified
- Cradle-to-gate scope
- Product specific

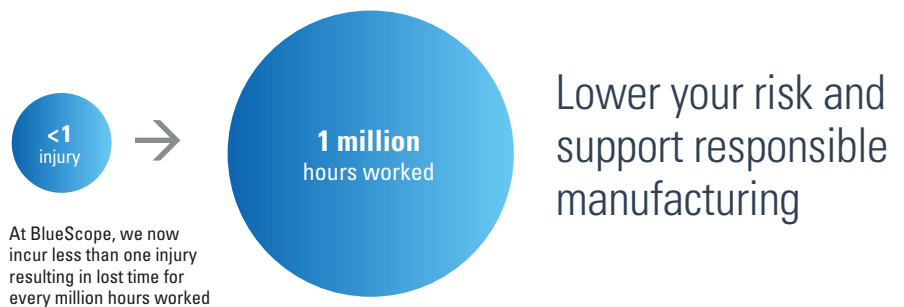
<b>Programme:</b>	The Australasian EPD® Programme <a href="http://www.epd-australasia.com">www.epd-australasia.com</a>
<b>Programme Operator:</b>	Australasian EPD Programme Ltd
<b>Technical Rules:</b>	Australasian General Programme Instructions
<b>Product Category Rules (PCR):</b>	Construction Products and Construction Services 2012:01, Version 2.01, 2016-03-09 (valid until 2019-03-03)
<b>EPD Registration Number:</b>	S-P-00557
<b>Approval Date:</b>	2015-06-22
<b>Valid Until:</b>	2020-06-22
<b>Revision Date:</b>	2015-06-22
<b>Geographical Scope:</b>	Scope of EPD: Produced using Australian data Application scope: International



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## Steel – Hot Rolled Coil

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## Steel by BlueScope

At BlueScope, we pride ourselves on our role as a good corporate citizen. We recognise our social responsibilities and strive to continuously improve our performance in the areas of health, safety, environment and community.

Hot rolled coil steel is manufactured at Port Kembla, NSW, Australia by BlueScope. The manufacturing facilities are accredited to both ISO 9001 (Quality Systems) and ISO 14001 (Environmental Management Systems). BlueScope is a member of the World Steel Association Climate Action Programme, which measures and monitors carbon dioxide emissions. The data collection programme is at the core of the steel industry's global steel sectoral approach to climate change.

At BlueScope, we pride ourselves on our role as a good corporate citizen. We recognise our social responsibilities and strive to continuously improve our performance in the areas of health, safety, environment and community.

"We care for the environment" is a cornerstone statement in "Our Bond", which guides the decisions we make at BlueScope each day. We consider the potential impacts that we could make to land, air, water, waste, noise and energy as part of our normal business processes.

The safety of our people is our number one priority at BlueScope. Across the company, from our manufacturing and distribution sites to our offices, our focus is on Zero Harm. The results are very evident – we have now reached a point where we incur less than one injury resulting in lost time for every million hours worked, and our efforts have lowered the likelihood of injury across BlueScope's workforce.

As an Australian manufacturer, we are proud to contribute to local employment and economic growth, and to contribute to the wellbeing and prosperity of our community.

See Our Bond at <http://bluescope.com/about-us/our-bond>.



You can depend on Australian made quality steel products

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## Steel – Hot Rolled Coil

### Environmental Product Declaration

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## BlueScope Manufacturing

BlueScope manufactures steel from raw and recycled materials using an “integrated steelmaking” method. This involves the use of iron ore, coal, steel scrap, fluxes (limestone and dolomite) and alloying materials to produce steel slab via the major processes of sintering, cokemaking, Blast Furnace ironmaking, Basic Oxygen Steelmaking (BOS) and continuous slab casting, prior to hot rolling into the final hot rolled coil steel product.

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### Alternative Steel Manufacturing Methods

There are a number of different methods of making iron and steel. The two primary methods are integrated Blast Furnace / Basic Oxygen Steelmaking (BF/BOS), which BlueScope uses, and Electric Arc Furnace (EAF) steelmaking, which uses a higher recycled content ingredient mix.

Both primary methods of steelmaking have significant benefits for the steel market. The BF/BOS process uses higher rates of virgin raw materials and lower rates of recycled steel, compared to EAF steelmaking.

Both types of steelmaking are critical to the industry, being complementary processes and neither one is considered superior to the other. Scrap steel is in short supply, compared to the market demand for steel, and hence we need to both fully utilise the scrap stream and supplement supply with steel made from new materials.

Steel scrap is in high demand and internationally traded as a commodity, and therefore has an intrinsic economic value that drives recovery of steel products at end of life. This is evidenced by an Australian recycling rate of 89%\*.

The result is that the production route actually makes no difference to the net environmental impacts of the steel production chain, as it does not cause more steel to be recycled.

Conversely, if high recycled content steel is specified and this causes additional transport impacts to be incurred (compared to alternative local steel supplies) then this actually increases the burden of the steel supply chain and has a net negative environmental impact.

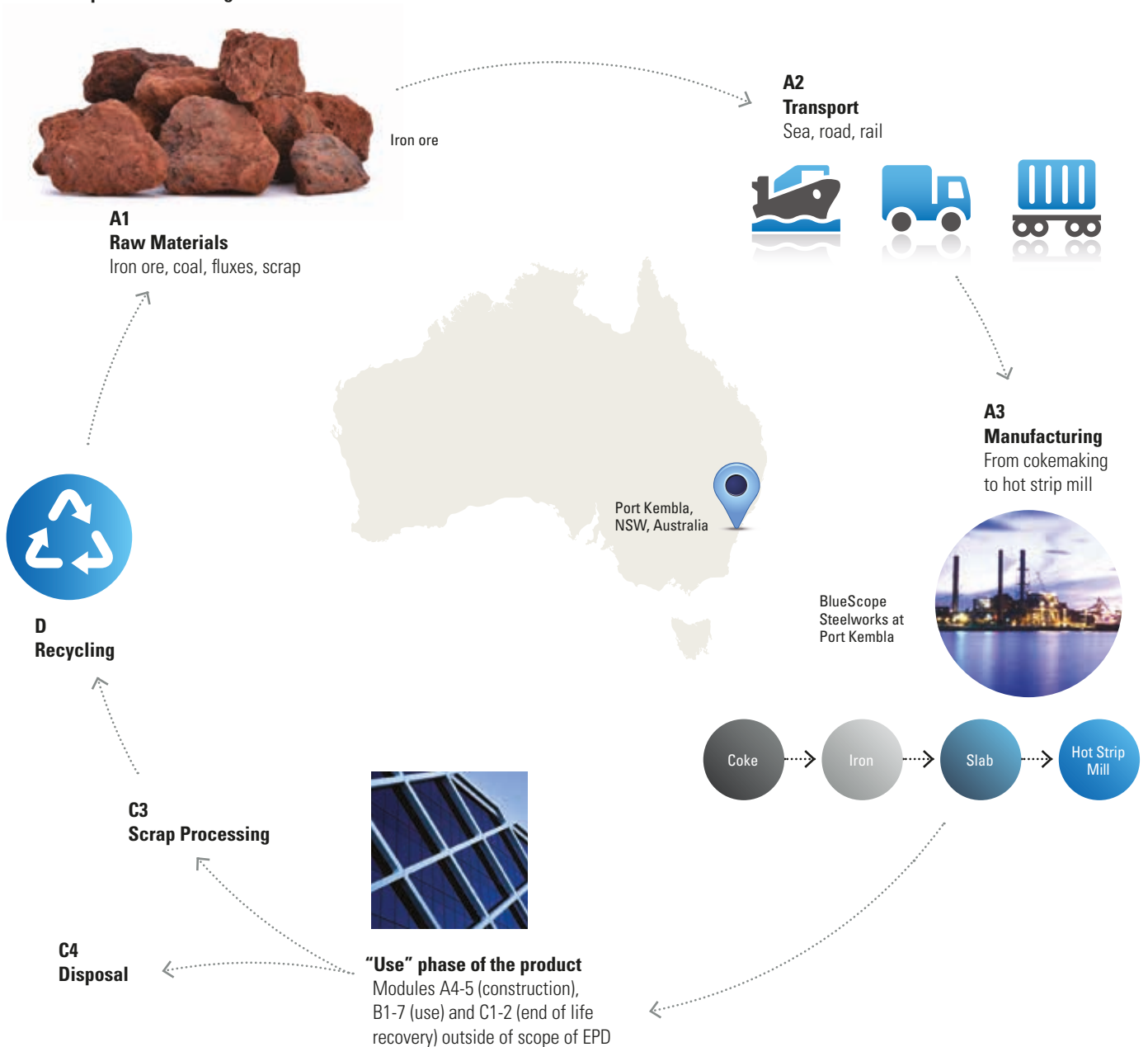
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More steel is recycled  
than any other product





## BlueScope Manufacturing



# Steel – Hot Rolled Coil

## Environmental Product Declaration

### Declared Unit

This EPD is valid for a declared unit of one kilogram (kg) of average welded beam and column from BlueScope's Welded Products Plant.

## Product Description

BlueScope's hot rolled coil steel products provide guaranteed minimum yield strengths, excellent weldability, good ductility and are excellent for galvanising applications.

The hot rolled products are categorised into structural, formable and analysis products typically used in structural sections, tanks, gas cylinders and guardrails to name a few.

Produced to the Australian Standard AS/NZS 1594:2002, the hot rolled coil steel range provides the flexibility to select from

our standard range or customised grades, width, thickness and length to suit your specific design criteria no matter whether it is for strength, ductility, weldability, bendability or galvanisability.

BlueScope also provides floor plate, which has a raised pattern on one side typically used on

walkways and for machinery and equipment.

Hot rolled coil steel products form part of the following standard classifications: ANZSIC\* 2711 – "Iron and Steel Manufacturing" and UN CPC 41211 – "Flat-rolled products of non alloy steel, not further worked than hot rolled, of a width of 600mm or more".

### A summary of the hot rolled coil product range

<b>Thickness</b>	Between 1.5mm and 12.7mm (depending on product)
<b>Grade</b>	A range of grades available for structural, formable and analysis application. For more details on the range of grades visit <a href="http://www.steel.com.au/products/uncoated-steel/hot-rolled-coil">http://www.steel.com.au/products/uncoated-steel/hot-rolled-coil</a>
<b>Width</b>	Between 710 and 1550mm (depending on product)
<b>Mass</b>	Available in full coil or half coil ranging from 10t up to 27t based on width
<b>Edge Condition</b>	<ul style="list-style-type: none"><li>– Mill edge/Untrimmed Edge where coil is supplied with edge as rolled condition</li><li>– Trimmed Edge where coil is supplied either with a sheared edge or as a narrow coil</li></ul>

### Product Content

The typical composition of hot rolled coil steel is:

Element	Typical Content
Iron	>98%
Manganese	<1.5%
Carbon	<0.2%
Other	<0.1% each

### Steel by BlueScope – Recycled Content\*

- 25% average recovered content, including
- Post-consumer recycled content: 8.5%
- Pre-consumer recycled content: 6.5%

The above data complies with the ISO14021 definitions of recycled content.

Hot rolled coil steel is compliant with the European REACH regulation† (EC) 1907/2006 and does not release any hazardous substances when in use. For safe use and maintenance, refer to the product Safety Data Sheet (SDS) at [steel.com.au/library/safetydatasheet](http://steel.com.au/library/safetydatasheet)\*.

### What is an SDS?

A Safety Data Sheet (SDS) is a document that describes the chemical and physical properties of a product or material and provides safe handling and use information





## Scope of Declaration

The scope of this declaration is for 1kg of dry hot rolled coil from cradle to the mill gate, including end-of-life processing and recycling: Modules A1-A3, C3-C4 and D (according to EN 15804). Modules A4-A5, B1-B7 and C1-C2 have not been included due to the inability to predict how the material will be used following manufacture.

The system boundary applied in this study extends from mining of raw materials such as iron ore and coal; transport to and within the manufacturing site; coke, sinter, iron and steel manufacture; ancillary service operations; hot rolling of steel products and preparation for

dispatch to customers at the exit gate of the manufacturing site.

The system boundary also includes manufacture of other required input materials, the production of external services such as electricity, natural gas and water, and the production of co-product

materials within the steelmaking process, which have been removed by the use of allocation techniques. Wastes and emissions to air, land and water are also included, as are Modules C3 scrap processing, C4 disposal to landfill and D recovery for recycling.

**Table 1. Scope of Declaration in EPD**

Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
Raw materials	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse – recovery – recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X

X = Module declared; MND = Module Not Declared (such a declaration shall not be regarded as an indicator of a zero result).

# Steel – Hot Rolled Coil

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### Results of Assessment

**Table 2. Environmental Impacts of 1kg Hot Rolled Coil**

Environmental impacts					
Parameter	Unit	A1-3	C3	C4	D
GWP	kg CO <sub>2</sub> -eq.	2.52	0.0210	0.00112	-1.08
ODP	kg CFC11-eq.	5.88E-11	0	3.29E-14	0
AP	kg SO <sub>2</sub> -eq.	0.0096	6.86E-5	5.17E-6	-0.00257
EP	kg PO <sub>4</sub> <sup>3-</sup> -eq.	0.00103	5.31E-6	8.94E-7	-7.10E-5
POCP	kg ethene-eq.	0.00154	6.41E-6	6.26E-7	-0.000575
ADPE	kg Sb-eq.	1.59E-7	3.26E-9	1.73E-10	-1.21E-7
ADPF	MJ	28.0	0.285	0.016	-11.4
GWP = Global warming potential ODP = Ozone depletion potential AP = Acidification potential EP = Eutrophication potential POCP = Photochemical ozone creation potential ADPE = Abiotic depletion potential for non-fossil resources ADPF = Abiotic depletion potential for fossil resources					

**Table 3. Resource Use for 1kg Hot Rolled Coil**

Resource use					
Parameter	Unit	A1-3	C3	C4	D
PERE	MJ	0.265	0.00163	0.000782	0.586
PERM	MJ	0	0	0	0
PERT	MJ	0.265	0.00163	0.000782	0.586
PENRE	MJ	28.0	0.310	0.0166	-11.3
PENRM	MJ	0	0	0	0
PENRT	MJ	28.0	0.310	0.0166	-11.3
SM	kg	0.170	0	0	0
RSF	MJ	0	0	0	0
NRSF	MJ	0	0	0	0
FW	m <sup>3</sup>	0.00188	-4.47E-5	-1.07E-5	0.000338
PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials PERM = Use of renewable primary energy resources used as raw materials PERT = Total use of renewable primary energy resources PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials PENRM = Use of non-renewable primary energy resources used as raw materials PENRT = Total use of non-renewable primary energy resources SM = Use of secondary material RSF = Use of renewable secondary fuels NRSF = Use of non-renewable secondary fuels FW = Use of net fresh water					

**Table 4. Output Flows and Waste Categories for 1kg Hot Rolled Coil**

Output flows and waste categories					
Parameter	Unit	A1-3	C3	C4	D
HWD	kg	2.71E-5	0	4.14E-7	0
NHWD	kg	0.0130	0.000746	0.11	0
RWD	kg	9.70E-6	3.23E-8	2.21E-7	1.23E-9
CRU	kg	0	0	0	0
MFR	kg	0	0.89	0	0
MER	kg	0	0	0	0
EEE	MJ	0	0	0	0
EET	MJ	0	0	0	0
HWD = Hazardous waste disposed NHWD = Non-hazardous waste disposed RWD = Radioactive waste disposed CRU = Components for re-use			MFR = Materials for recycling MER = Materials for energy recovery EEE = Exported electrical energy EET = Exported thermal energy		

**Table 5. End of Life for 1kg Hot Rolled Coil**

End of life		
Parameter	Unit	Total
Steel collected separately	kg	0.89
Steel collected with mixed construction waste	kg	0
Recovery for re-use	kg	0
Recovery for recycling	kg	0.89
Recovery for energy recovery	kg	0
Disposal to landfill	kg	0.11
Assumptions for scenario		N/A

**Table 6. Additional Green Star Environmental Impact Categories for 1kg Hot Rolled Coil**

Additional Green Star environmental impacts		
Parameter	Unit	A1-3
Human toxicity cancer effects	kg 1,4 DB eq	5.81E-10
Human toxicity non-cancer effects	kg 1,4 DB eq	1.46E-7
Ionising radiation	kg U-235 eq	8.47E-3
Particulate matter	kg PM2.5 eq	6.81E-4
Water Scarcity	m <sup>3</sup>	2.62E-1
Land Use	m <sup>2</sup>	1.88E-3

Additional  
Green Star  
Environmental  
Impact  
Categories

### Take Care When Comparing

Issues to consider when comparing EPD data include:

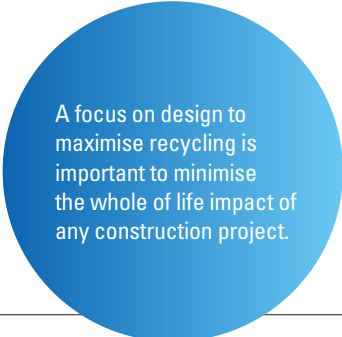
- Both EPDs must comply with the comparability requirements in EN 15804, eg using equivalent methodology and assumptions such as utilising the same PCR.
- LCA provides high-level scientific guidance and differences in data should be substantial to be material.
- Understanding the detail is important in comparisons. Expert analysis is required to ensure data is truly comparable, to avoid unintended distortions.
- The best way to compare products and materiality of differences is to place them into the context of a structure across the whole life cycle.

This EPD is compliant with PCR 2012:01 Construction Products and Construction Services, Version 2.0, 2015-03-03 (valid until 2019-03-03).

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# Steel – Hot Rolled Coil

## Environmental Product Declaration



A focus on design to maximise recycling is important to minimise the whole of life impact of any construction project.

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### Recycling

All BlueScope steel products are 100% recyclable into equivalent or higher quality products – no losses are necessary due to downgrading of recyclable material.

Steel's magnetic properties mean that it can be easily separated for recycling. The intrinsic economic value of steel results in a high recovery rate of all steel waste.

Recycling saves money for construction projects – ensure that all steel is separated and recycled.

Scrap merchants are available in all major cities.

The actual recycling rate of steel at End of Life has a significant impact on the cradle to grave results – note that for steel construction products, the End of Life recycling rate is likely to be significantly higher than the 89% used

here – but in specific construction projects may range from 0-100%.

A focus on design to maximise recycling is important to minimise the whole of life impact of any construction project.

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### Life Cycle Assessment (LCA) Methodology

This EPD has been produced in conformance with the requirements of The Australasian EPD® Programme General Programme Instructions v1.0 (GPI), PCR 2012:01 v2.0 Construction Products and Construction Services and the Australian Green Star Sustainable Products and Life Cycle Impacts credits.

The Life Cycle Inventory (LCI) data which forms the basis of this EPD relates to the time periods listed below. Using differing time periods was the most representative data set to cover future operation, due to interruptions to standard operation at the Blast Furnace and operational changes at Slabmaking.

- 1 July 2012 to 30 June 2013 – majority of data
- 1 July 2013 to 30 June 2014 – Slabmaking data

All relevant and available data were collected. While cut-off criteria according to the PCR section 6.6 were employed, much data which would have fallen within that scope were included regardless, if available. Use of secondary data was not required for within the gate-to-gate (A3) scope. No carbon dioxide offsetting is included in the LCI.

The secondary data used were procured from the latest GaBi standard databases and hence are less than 5 years old. Where Australian data was required but not available, the process in GaBi was “Australianised” to ensure that key items such as electricity supply were represented appropriately. The modelled electricity supply was the standard GaBi Australian grid mix, which is dominated by hard coal supply.

Allocation was carried out in accordance with the PCR section 6.7, where subdivision of processes was not possible. Where economic allocation was required, prices were based on a three year average.

The recycling scenario was based on Hyder Consulting reports\* which indicate that the average metals recycling rate in Australia is 89%. This is considered to be a conservative estimate for flat steel construction products, but was used in the absence of verified higher recycling rates.

Key assumptions made in the study were:

- Accuracy of data measurement falls within normal industrial weighing systems accuracy limits of +/-5%.
- Transport of all materials other than major raw materials is insignificant to the overall impacts of hot rolled and welded steel products.
- “Average product” data is presented – any differences in composition of steel grades is insignificant compared to the outcomes of the LCA.

Assumptions were sensitivity tested and significant findings are included on the following page.



## Interpretation of Results

The LCI and LCA results show that BlueScope has an efficient Blast Furnace route steel production process and the results correspond well with typical Blast Furnace production processes across the world.

Steel is a relatively high-impact material on a mass basis. Therefore, it is important that structures are designed for long life, resilience and flexibility to accommodate multiple future re-use options without re-investment in structural alternation and refurbishment.

### Impact Category Results

While BlueScope has an efficient Blast Furnace route steel production process, the main contributor to Global Warming Potential (GWP) remains the Ironmaking process.

The use of alloys and iron ore are the main contributors to Abiotic Depletion Potential (ADP) elements, and the use of hard coal is the main contributor to ADP fossil.

The LCA results for Global Warming are driven by the combustion of energy sources at the steelworks, and the CO<sub>2</sub> emissions resulting from this combustion. The choice of energy sources used in the production process is significant, notwithstanding the limitation of being constrained to use of the Australian electricity grid.

Acidification Potential and Photochemical Ozone Creation Potential are also driven by on-site combustion, through the release of SO<sub>x</sub>, NO<sub>x</sub> and other emissions in the combustion processes.

While this EPD comprehensively covers the requirements for reporting in the PCR section 8 and Green Star criteria, it is important to recognise that any LCA is not a complete assessment of all environmental or sustainability issues of the product system under study.

### Methodology

This product-specific EPD validly represents the production processes described. The cut-off criterion of 1% (conforming with PCR 2012:01 section 6.6) has resulted in a data set which is robust and all significant contributors to the LCA results have been captured in the study\*.

Upstream data taken from the GaBi database reflects average or generic production and therefore does not correspond to BlueScope's actual suppliers.

Allocation of co-products was made based on economic allocation or physical allocation – no use of system expansion was made (excepting module D) as per Australasian EPD requirements. The allocation of certain emissions and resources away from the production of steel to the co-products alters the LCA results, and the choice of allocation method can change the final results. Allocation was performed according to the PCR section 6.7, and hence conforms with comparability requirements therein.

### Average Product Assumption – Sensitivity of Results

The LCI gathered, and hence the results in this EPD, are for annual average steel production, irrespective of steel grade. Sensitivity testing was carried out to determine the impact of this assumption.

For hot rolled coil, the average alloy content is less than for the annual average steel production. All standard products are reasonably represented by the assumption of an “average product” of steel.

Very little hot rolled coil is produced which would be considered to be specialist, high-alloy grades but where this is the case, analysis showed that ADP Elements, and to a lesser extent Acidification Potential, do elevate when alloy content is much higher than standard. A difference of 20-30% in ADP Elements is possible in some rare circumstances. The customer is advised to seek advice from BlueScope if clarification on a particular steel grade is needed by contacting BlueScope Steel Direct on 1800 800 789.

### Other Sensitivity Analysis Results

Changing the End of Life recycling rate has the largest impact on the GWP and the ADP Fossil impacts across the cradle to grave life cycle. For an 11% improvement in the recycling rate (from 89% to 100%) the GWP drops by 12%, and the ADP fossil results by 10%. This highlights the importance of design for re-use and recycling, to reduce overall life cycle impacts and provide an input resource for future use.

By contrast, increasing the use of secondary steel by 5% in the production process decreases the GWP results by 3% across the production phase (cradle to gate), as less primary liquid iron is required in Slabmaking. Hence, BlueScope should continue to attempt to increase the rate of secondary (recycled) steel use where technologically and economically viable to do so.

\* Where available, data which fell within the cut-off criteria were included in the data set.



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### LCA Terminology

<b>Cradle to gate</b>	Scope of study extends from mining of natural resources to the completed product ready for shipping from the manufacturing dispatch “gate”, known as Modules A1-A3.
<b>Cradle to grave</b>	Scope of study extends from mining of natural resources to manufacture, use and disposal of products at End of Life, including all Modules A-D.
<b>End of life</b>	Post-use phase life cycle stages involving collection and processing of materials (eg scrap) and recycling or disposal, known as Modules C and D.


### Glossary of Terms

Impact Category	Units	Description	Characterisation Method
Global warming (climate change) potential	kgCO <sub>2</sub> equiv	Contribution to the greenhouse effect, referred to as CO <sub>2</sub> e (carbon dioxide equivalent)	IPCC AR4
Stratospheric ozone depletion potential	kg CFC-11 equiv	Impact on the ozone layer	WMO 1999
Acidification potential of land and water	kg SO <sub>2</sub> equiv	Emissions which increase the acidity of the environment	CML
Eutrophication potential	kg PO <sub>4</sub> <sup>3-</sup> equiv	Addition of nutrients to a water system resulting in reduction of the oxygen available to support aquatic life	CML
Photochemical (tropospheric) ozone creation potential	kg C <sub>2</sub> H <sub>2</sub> equiv	Contribution to air pollution in the form of smog	CML
Depletion of abiotic resources (elements/minerals)	kg Sb equiv	Impact of consuming non-renewable metal resources	CML
Depletion of abiotic resources (fossil)	MJ net calorific value	Impact of consuming non-renewable fossil fuel resources	CML
Human toxicity*	kg 1,4DB equiv	Human health impact of chemical emissions	USEtox
Land use*	land transformation m <sup>2</sup>	Use of land that could be used or preserved for other purposes	UNEP/SETAC Land Use Indicator Value Calculation in LCA
Resource depletion – water*	m <sup>3</sup> water use related to local scarcity of water	Use of fresh water	Water Stress Indicator
Ionising radiation*	kg U-235 equivalent to air	Radioactive substances released to the environment	Human Health Effect Model
Particulate matter*	kg PM2.5 equivalent	Contribution to air pollution which can have respiratory effects	RiskPoll

# Steel – Hot Rolled Coil

## Environmental Product Declaration

### Programme-related Information and Verification

<b>Programme:</b>	The Australasian EPD® Programme c/o Enviro-Mark Solutions Level 14 / Prime Property Tower 86-90 Lambton Quay, Wellington 6011, New Zealand  info@epd-australasia.com New Zealand Phone: 0800 366 733 Australia Phone: 1800 733 560  http://www.epd-australasia.com
<b>EPD Registration Number:</b>	S-P-00557
<b>Published:</b>	2015-06-22
<b>Valid Until:</b>	2020-06-22
<b>Revision Date:</b>	2015-06-22
<b>Product Category Rules:</b>	PCR 2012:01 Construction Products and Construction Services, Version 2.0, 2015-03-03 (valid until 2019-03-03)
<b>Product Group Classification:</b>	UN CPC 41211 – Flat-rolled products of non alloy steel, not further worked than hot rolled, of a width of 600mm or more ANZSIC 2711 – Iron and Steel Manufacturing
<b>Reference Year for Data:</b>	1/7/2012 – 30/6/2013 (majority of data) 1/7/2013 – 30/6/2014 (Slabmaking data updated to reflect change in operational practices)
<b>Geographical Scope:</b>	Scope of EPD: Produced using Australian data. Application scope: International
<b>CEN standard EN 15804 served as the core PCR</b>	
<b>PCR:</b>	PCR 2012:01 Construction Products and Construction Services, Version 2.0, 2015-03-03 (valid until 2019-03-03)
<b>PCR review was conducted by:</b>	The Technical Committee of the International EPD® System. Chair: Massimo Marino. Contact via info@environdec.com
<b>Independent Verification of the Declaration and Data, according to ISO 14025:</b>	<input type="checkbox"/> EPD process certification (Internal) <input checked="" type="checkbox"/> EPD verification (External)
<b>Third Party Verifier, Approved by The International EPD® System</b>	 <b>Rob Rouwette</b> , start2see Pty Ltd, Rob.Rouwette@start2see.com.au
<b>Accredited or approved by:</b>	The Australasian EPD® Programme

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# Steel – Hot Rolled Coil

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### Mandatory Statements

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- This EPD covers life cycle stages A1-A3 plus C3, C4 and D. All other stages are dependent on the specific application of the product and should be included in a whole-of-life model.
  - This EPD is verified to be compliant with EN 15804.
  - EPD of construction products may not be comparable if they do not comply with EN 15804.
  - EPDs within the same product category but from different programmes or utilising different PCRs may not be comparable.
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### Contact Information

**For further information, contact BlueScope Steel Direct**  
**1800 800 789**  
**[www.steel.com.au](http://www.steel.com.au)**

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<b>BlueScope Steel Limited</b>	Level 11, 120 Collins St, Melbourne Vic 3000 Australia ABN 16 000 011 058  Responsible person: Nicole Sullivan, Technical Manager, Sustainability, BlueScope.
<b>EPD Owner</b>	Nicole Sullivan, BlueScope <a href="mailto:Nicole.Sullivan@bluescopesteel.com">Nicole.Sullivan@bluescopesteel.com</a>
<b>LCA Author</b>	Nicole Sullivan, BlueScope <a href="mailto:Nicole.Sullivan@bluescopesteel.com">Nicole.Sullivan@bluescopesteel.com</a>  Julie Sandilands, thinkstep <a href="mailto:anz@thinkstep.com">anz@thinkstep.com</a>
<b>Programme Operator</b>	The Australasian EPD® Programme <a href="mailto:info@epd-australasia.com">info@epd-australasia.com</a>
<b>Product Website</b>	<a href="http://steel.com.au/products/uncoated-steel/hot-rolled-coil">http://steel.com.au/products/uncoated-steel/hot-rolled-coil</a>
<b>BlueScope Manufacturing ISO 14001 Certificate</b>	<a href="http://steel.com.au/articles/article-25-using-bluescope-products-in-sustainable-building/article-38-green-tools--schemes">http://steel.com.au/articles/article-25-using-bluescope-products-in-sustainable-building/article-38-green-tools--schemes</a>
<b>Worldsteel Climate Action Programme Membership</b>	<a href="http://www.worldsteel.org/steel-by-topic/climate-change/members.html">http://www.worldsteel.org/steel-by-topic/climate-change/members.html</a>
<b>BlueScope Community, Safety and Environment Report</b>	<a href="http://www.bluescope.com/sustainability/publications">http://www.bluescope.com/sustainability/publications</a>
<b>BlueScope Community Website</b>	<a href="http://www.bluescopeillawarra.com.au">http://www.bluescopeillawarra.com.au</a>

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# Steel – Hot Rolled Coil

## Environmental Product Declaration

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**BlueScope Steel Limited**

Level 11, 120 Collins St, Melbourne Vic 3000 Australia  
ABN 16 000 011 058

For further information, contact BlueScope Steel Direct on 1800 800 789

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