



ENVIRONMENTAL PRODUCT DECLARATIONS

With a longstanding commitment to circularity and extracting the full value of natural resources, ResourceCo produces a range of recycled aggregate products to support industry in reducing their environmental footprint. ResourceCo collects and processes Construction and Demolition (C&D) waste materials, including asphalt, concrete, bricks and rubble, and converts these into a range of recycled products for local construction and infrastructure development.

A focus on environmental credentials and emission reporting are emerging as a key requirement in federal, state and local government procurement policies and tenders. ResourceCo recognises the need for its clients to be equipped with tools that can provide evidence of their environmental performance. ResourceCo has developed Environment Product Declarations (EPDs) for each of their recycled aggregate products to support clients measuring their environment performance.

What is an EPD?

An EPD provides independently verified, quantified data on the environmental impacts associated with a given product at each stage of that product’s lifecycle. The data presented in an EPD is generated through a process called a Life Cycle Assessment (LCA), which tracks the processes, inputs, and outputs involved in each step of the development of a product and calculates a quantified environmental impact at each stage. ResourceCo engaged sustainability consultant Thinkstep to undertake the LCA study. The results of the study have been independently verified by PINDA Life Cycle Thinking.

A summary of the core environmental impact data for Global Warming Potential-total (A measure of greenhouse gas emissions, such as CO2 and methane) generated for ResourceCo’s products manufactured at our Wingfield and Lonsdale facilities is provided below:

EN15804+A2 CORE ENVIRONMENTAL IMPACT INDICATOR FOR GWP-total FOR A1-A3

PARAMETER	UNIT	PM1/20RM BASE COURSE	PM2/20RG SUB BASE	PM2/40RG SUB BASE	10/20MM CONCRETE AGGREGATES	10/20MM DRAINAGE AGGREGATES	BITUMATE	-7MM SAND
WINGFIELD								
GWP-total	kg CO ₂ eq.	4.42	3.51	3.49	8.14	8.14	4.49	2.64
LONSDALE								
GWP-total	kg CO ₂ eq.	5.32	4.25	4.59	9.55	9.55	5.83	3.58

In addition to the Global Warming Potential, the EPDs provide a range of additional environmental information which is important to consider when determining the environmental impact of a product.

The full suite of metrics are available in the EPDs which can be accessed via the QR Codes below:



WINGFIELD EPDS



LONSDALE EPDS

A summary of the core environmental impact data for Global Warming Potential-total (A measure of greenhouse gas emissions, such as CO2 and methane) generated for ResourceCo's products manufactured at our Brooklyn facility, and for our Recycled Glass Sand is provided below:

EN15804+A2 CORE ENVIRONMENTAL IMPACT INDICATOR FOR GWP-total FOR A1-A3

PARAMETER	UNIT	5MM CRUSHER DUST	10-14MM AGGREGATE	CLASS 2 CRUSHED ROCK	CLASS 2 RECYCLED CONCRETE	CLASS 3 CRUSHED ROCK
BROOKLYN		10.3	9.52	8.05	6.46	7.58
GWP-total	kg CO ₂ eq.					
		CLASS 3 RECYCLED CONCRETE	20MM AGGREGATES	7MM AGGREGATES	10-20MM AGGREGATES	RECYCLED GLASS SAND
BROOKLYN						WINGFIELD
GWP-total	kg CO ₂ eq.	6.29	10.3	13.1	6.64	3.08

In addition to the Global Warming Potential, the EPDs provide a range of additional environmental information which is important to consider when determining the environmental impact of a product.

The full suite of metrics are available in the EPDs which can be accessed via the QR Codes below:



BROOKLYN EPDS



RECYCLED GLASS SAND EPD



RECYCLED GLASS SAND -5MM

APPLICATIONS:

This product is used in the manufacture of more sustainable construction materials and as an alternative to sand.

- Bedding and backfill
- Unbound granular base
- Fine aggregates in concrete
- Fine aggregates in asphalt
- Filtration

The core environmental impact indicators included in ResourceCo's EPDs are summarised below:

EFP Indicator	Definition	Impact
Global Warming Potential (total)	A measure of greenhouse gas emissions, such as CO ₂ and methane.	These emissions are causing an increase in the absorption of radiation emitted by the earth, increasing the natural greenhouse effect. This may in turn have adverse impacts on ecosystem health, human health and material welfare.
Ozone Depletion	A measure of air emissions that contribute to the depletion of the stratospheric ozone layer.	Depletion of the ozone leads to higher levels of UVB ultraviolet rays reaching the earth's surface with detrimental effects on humans and plants.
Acidification	A measure of emissions that cause acidifying effects to the environment. The acidification potential is a measure of a molecule's capacity to increase the hydrogen ion (H ⁺) concentration in the presence of water, thus decreasing the pH value.	Potential effects include fish mortality, forest decline and the deterioration of building materials.
Eutrophication potential	Eutrophication covers all potential impacts of excessively high levels of macronutrients, the most important of which nitrogen (N) and phosphorus (P).	Nutrient enrichment may cause an undesirable shift in species composition and elevated biomass production in both aquatic and terrestrial ecosystems. In aquatic ecosystems increased biomass production may lead to depressed oxygen levels, because of the additional consumption of oxygen in biomass decomposition.
Photochemical ozone formation	A measure of emissions of precursors that contribute to ground level smog formation (mainly ozone O ₃), produced by the reaction of VOC and carbon monoxide in the presence of nitrogen oxides under the influence of UV light.	Ground level ozone may be injurious to human health and ecosystems and may also damage crops.
Depletion of abiotic resources – minerals and metals	Consumption of non-renewable resources.	Leads to a decrease in the future availability of the functions supplied by these resources. Depletion of mineral resources is assessed based on ultimate reserves.
Water Use	A measure of the net intake and release of fresh water across the life of the product system.	Leads to a decrease in the future availability of the functions supplied by these resources.

Production Sites

SOUTH AUSTRALIA

WINGFIELD RECYCLING FACILITY

144 – 150 Wingfield Road, Wingfield, SA, 5013

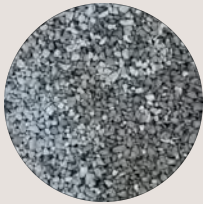
LONSDALE RECYCLING FACILITY

6 Meyer Road, Lonsdale, SA, 5160



Product Information - SA

ResourceCo's recycled products are produced to meet the requirements of various construction and transport uses. ResourceCo's recycled products can also be brought back to ResourceCo facilities at the end of their useful life and recycled further into more recycled products, contributing to a more circular economy.



PM1/20RM - BASE COURSE

APPLICATIONS:

Pavement materials (class 1) are intended for use as pavement layers on high trafficked roads. These products are equivalent to Class 1 Quarried Pavement Materials.



PM2/20RG and PM2/40RG - SUB BASE

APPLICATIONS:

This product is intended for use as pavement layers on medium trafficked roads or sub-base layers on high trafficked roads. This product is produced to meet DIT specifications for Pavement materials.



10/20 MM DRAINAGE AGGREGATES

APPLICATIONS:

This product is suitable for use as drainage aggregate in backfill behind retaining walls & other drainage aggregate applications. They can also be used in decorative & landscaping applications.



10/20 MM CONCRETE AGGREGATES

APPLICATIONS:

This product is used in the manufacture of sustainable 'green' concrete as an alternative to quarried materials.

BITUMATE

APPLICATIONS:

- Footpaths, fire tracks, walking trails
- Road shoulder construction and repair
- Light duty car parks
- Hard stand areas
- Driveways
- Unsealed rural roads



-7MM SAND

APPLICATIONS:

This product is used as packing sand for trench work and as under floor or engineered fill. It is suitable for under concrete or pavers and performs as a suitable substitute for quarried sands.



Production Sites

VICTORIA

BROOKLYN RECYCLING FACILITY

125 Bunting Road, Brooklyn, VIC, 3012



Product Information - VIC

ResourceCo's recycled products are produced to meet the requirements of various construction and transport uses. ResourceCo's recycled products can also be brought back to ResourceCo facilities at the end of their useful life and recycled further into more recycled products, contributing to a more circular economy.



CLASS 2 CRUSHED ROCK

APPLICATIONS:

This product is used in road pavement, slab preparation and household use



CLASS 2 RECYCLED CONCRETE

APPLICATIONS:

This product is used in road pavement, slab preparation and household use.



CLASS 3 CRUSHED ROCK

APPLICATIONS:

This product is used in road pavement, slab preparation and household use



CLASS 3 RECYCLED CONCRETE

APPLICATIONS:

This product is used in road pavement, slab preparation and household use.



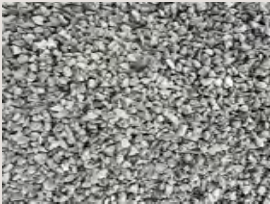
5MM - CRUSHER SAND

APPLICATIONS:

This product is used in concrete slab preparations, concrete additive to reduce sand usage in mix design, under paving, and trench backfill.

Product Information - VIC

ResourceCo's recycled products are produced to meet the requirements of various construction and transport uses. ResourceCo's recycled products can also be brought back to ResourceCo facilities at the end of their useful life and recycled further into more recycled products, contributing to a more circular economy.



10 - 14MM AGGREGATE

APPLICATIONS:

Used as concrete aggregate, drainage aggregate and garden mulch.



20MM AGGREGATE

APPLICATIONS:

Used as concrete aggregate, drainage aggregate and garden mulch.



10 - 20MM CONCRETE AGGREGATE

APPLICATIONS:

Used as concrete aggregate, drainage aggregate and garden mulch.



7MM AGGREGATE

APPLICATIONS:

Used as concrete aggregate, drainage aggregate and garden mulch.

Benefits of using ResourceCo's recycled aggregate products with a verified EPD

Green Star Certification

Achieve Green Star Certification of a building project with the Green Building Council of Australia (GBCA). There are multiple pathways and tools offered within the Green Star rating system that reward projects for having used recycled-content products accompanied by an EPD.



Infrastructure Sustainability Council

Achieve certification with the Infrastructure Sustainability Council of Australia's IS Rating Scheme. The IS scheme awards a range of credits to projects that can provide data on the life cycle impacts of their activities.



Improve and Expand Environmental Reporting

While a range of Local Government entities are already reporting on and setting targets to reduce their Scope 3 emissions, the introduction of new mandatory climate reporting legislation will also require that certain private sector entities follow suit. The environmental impact data accompanying ResourceCo's recycled aggregates will therefore enable end users to calculate and potentially reduce their Scope 3 emissions.

Improve tender competitiveness

The Federal Government has recently commenced Phase 1 of their Environmental Sustainability Procurement Policy Reporting Framework, which requires tenderers of construction projects to report on certain sustainability metrics. As ResourceCo's recycled aggregate products offer the dual sustainability benefit of being produced from 100% recycled materials, and having an EPD to provide quantitative evidence of the associated benefits, end users will be eligible to meet a range of the requirements set out in the Government's procurement policy, including;

- Achievement of applicable Green Star or Infrastructure Sustainability (IS) Rating to Australian best practice standards
- Spend on low embodied emissions products and/or materials
- Evidence of Environmental Product Declarations or third party verified lifecycle carbon footprint.



Mandated Requirements for EPDs

Government departments are now or soon to be mandating verified embodied carbon data be provided for their major projects.

ResourceCo's EPDs allow for quantitatively verified environmental data to be provided to end users. It is no longer acceptable to state your products and services are 'green' or 'sustainable' without quantification. With ResourceCo's EPDs you can be confident in the data being provided.

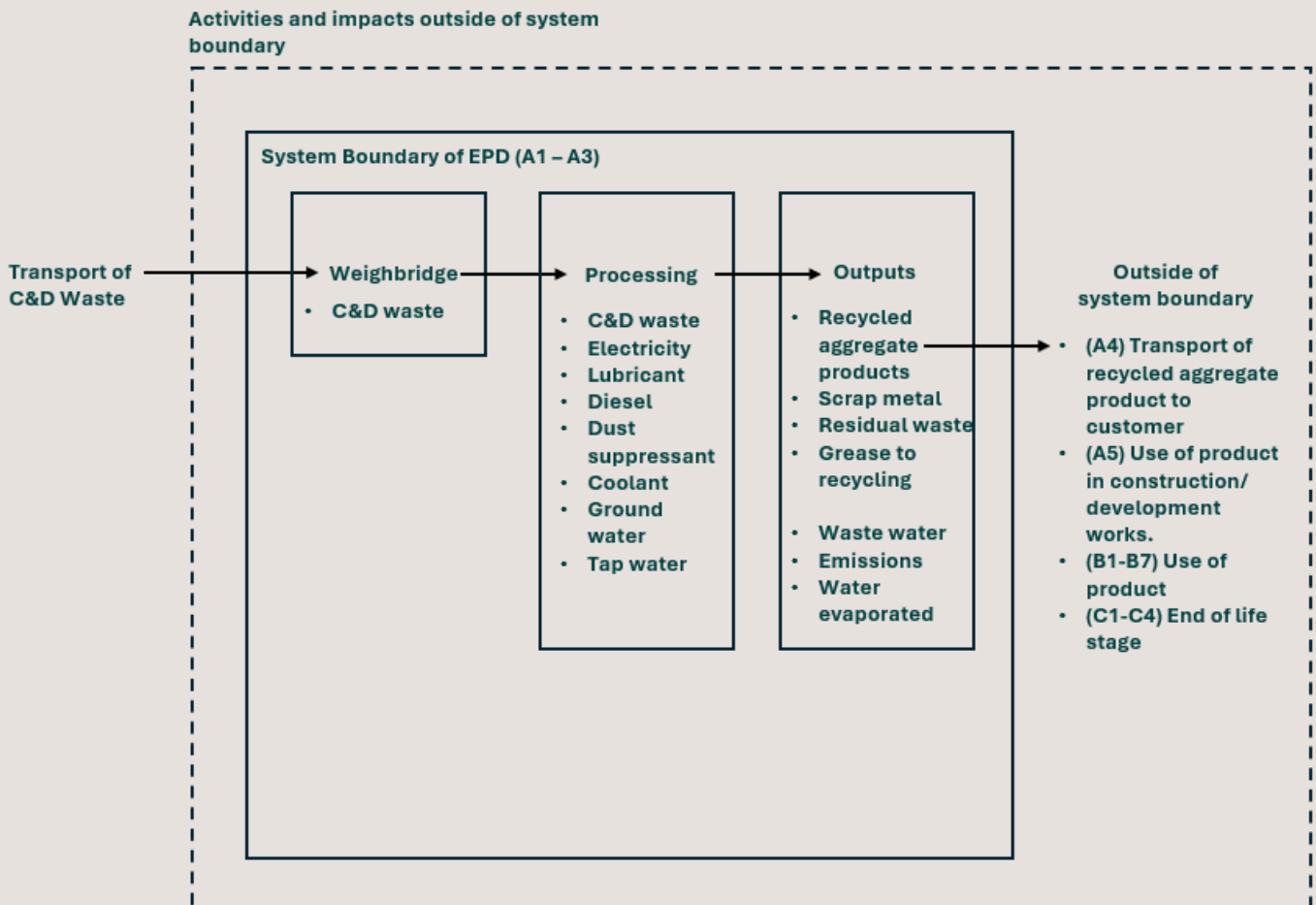
The EPD Process

The Life Cycle Assessment study undertaken for ResourceCo’s C&D products was based on a system boundary of ‘cradle-to-gate (A1-A3)’, defined in standard EN 15804 as the ‘product stage’. This system boundary measures the environmental impacts of ResourceCo’s products at each of the following life cycle stages:

- A1: Raw material supply of construction and demolition waste (secondary material) at the crushing site.
- A2: Transport of manufacturing inputs to site including coolant, diesel, dust suppressant, and lubricant.
- A3: Processes and inputs involved in the manufacture of ResourceCo’s recycled aggregates.

Subsequent life cycle stages concerning transport of the product to customer (A4), application in construction (A5), the use stage (B1-B7), and end-of-life stage (C1-C4), are not included within the system boundary under study. These life cycle stages vary by end use and are best considered according to their application.

A summary of the inputs and outputs included within ResourceCo’s system boundary for its recycled aggregate products is depicted below:





Find out what we can do for you:
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