

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

**FABRICATED STEEL
REINFORCEMENT PRODUCTS
(CUT AND BENT REBAR)
THAMES REINFORCEMENTS LTD**



GENERAL INFORMATION

MANUFACTURER INFORMATION

Manufacturer	Thames Reinforcements Ltd
Address	New Road, Sheerness, Kent, ME12 1NB
Contact details	kim.elmes@thamesreinforcements.com
Website	www.thamesreinforcements.com

PRODUCT IDENTIFICATION

Product name	Fabricated Steel Reinforcement Products (Cut and Bent Rebar)
Product number / reference	UN CPC Code: 412 Products of Iron & Steel
Place(s) of production	New Road, Sheerness, Kent, United Kingdom, ME12 1NB

EPD INFORMATION

EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

EPD program operator	Rakennustietosäätiö RTS / Rakennustieto Oy The Building Information Foundation RTS Malminkatu 16 A, 00100 Helsinki http://cer.rts.fi
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EPD standards	This EPD is in accordance with EN 15804+A2 and ISO 14025 standards.
Product category rules	The CEN standard EN 15804+A2 serves as the core PCR. In addition, the RTS PCR (English version, 26.8.2020) is used.
EPD author	Alice Dear & Kim Elmes Thames Reinforcements New Road, Sheerness, Kent, ME12 1NB www.thamesreinforcements.com
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal certification <input checked="" type="checkbox"/> External verification
Verification date	02/02/2021
EPD verifier	Anni Oviir Rangi Maja OÜ Tondi 22-4, 11316 Tallinn, Estonia www.lcasupport.com
EPD number	RTS_83_21
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EPD valid until	01/02/2026

SIGNATURES

Laura Sariola
Committee secretary

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Managing Director

PRODUCT INFORMATION

PRODUCT DESCRIPTION

CARES Approved grade 500 N/mm² cut and bent reinforcement bar to BS4449:2005.

PRODUCT APPLICATION

Thames Reinforcements produce cut & bent hot rolled ribbed steel reinforcement bar for use in the reinforcement of concrete in the following sizes: 8mm, 10mm, 12mm, 16mm, 20mm, 25mm, 32mm, 40mm, 50mm.

TECHNICAL SPECIFICATIONS

Ribbed Weldable Reinforcing Steel Used For The Reinforcement of Concrete	
Rolling to BS 4449 (straight lengths, coil, decoiled)	
Grade	B500A/B500B/B500C
Nominal Diameters	8, 10, 12, 16, 20, 25, 32, 40, 50 mm
Yield Strength (as per BS 4449:2005)	Min 500 N/mm ²
Tensile Strength (as per BS 4449:2005)	Min 540 N/mm ² (Tensile strength/Yield Strength ≥ 1.08)
Surface geometry (Relative rib area, fR as per BS 4449:2005)	Min 0.040 for Bar Size >6mm & ≤ 12mm Min 0.056 for Bar Size > 12mm
Agt (% total elongation at maximum force as per BS 4449:2005)	Min 5%

Further information can be found at www.thamesreinforcements.com.

PRODUCT STANDARDS

BS4449:2005+A3:2016 Steel for the reinforcement of concrete. Weldable reinforcing steel. Bar, coil and decoiled product.

BS8666:2005 Scheduling, dimensioning, bending and cutting of steel reinforcement for concrete.

PRODUCT RAW MATERIAL COMPOSITION

Material	Amount %	Usability		
		Renewable	Non-renewable	Recycled
Steel	100%			x

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	100%	UK, Europe (100%)
Minerals	-	-
Fossil materials	-	-
Bio-based materials	-	-

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0.1 % (1000 ppm).

PRODUCT LIFE-CYCLE

MANUFACTURING AND PACKAGING (A1-A3)

Thames Reinforcements purchase steel from suppliers that use the EAF process method (electric arc furnace), on average the recycled content is 95% with the other 5% being made up of ferric-alloys and minerals which are added to remove the impurities from steel. Purchased steel is transported from across the UK and Europe via freight ships and lorries. Freight lorries used are owned in-house, which holds Fleet Operator Recognition Scheme (FORS) Gold accreditation. All vehicles meet Euro 6 emissions standards. Where required, goods are packaged for ease of transportation using bulk bags and slings.

TRANSPORT AND INSTALLATION (A4-A5)

Finished product is taken from the Thames Reinforcements factory in Sheerness to construction sites within Greater London. The approximate distance is therefore 90 km as measured using Google Maps. Freight lorries used are owned in-house, which holds Fleet Operator Recognition Scheme (FORS) Gold accreditation. All vehicles meet Euro 6 emissions standards. Stage A5 installation has not been considered for the purpose of this EPD.

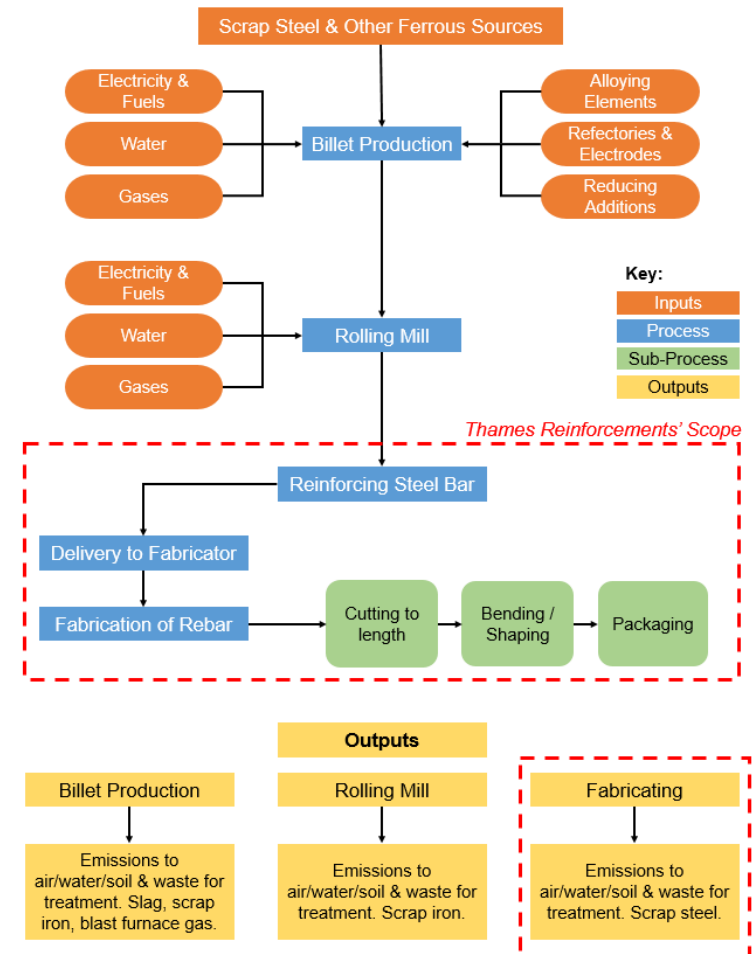
PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover use phase. Air, soil and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Steel reinforcement has a service life of 60+ years, and its end of life is typically the demolition of a building. Rebar from a demolition site will either be separated, and sent to a metal recycling facility.

MANUFACTURING PROCESS



LIFE-CYCLE ASSESSMENT

LIFE-CYCLE ASSESSMENT INFORMATION

Period for data	2019 calendar year
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DECLARED AND FUNCTIONAL UNIT

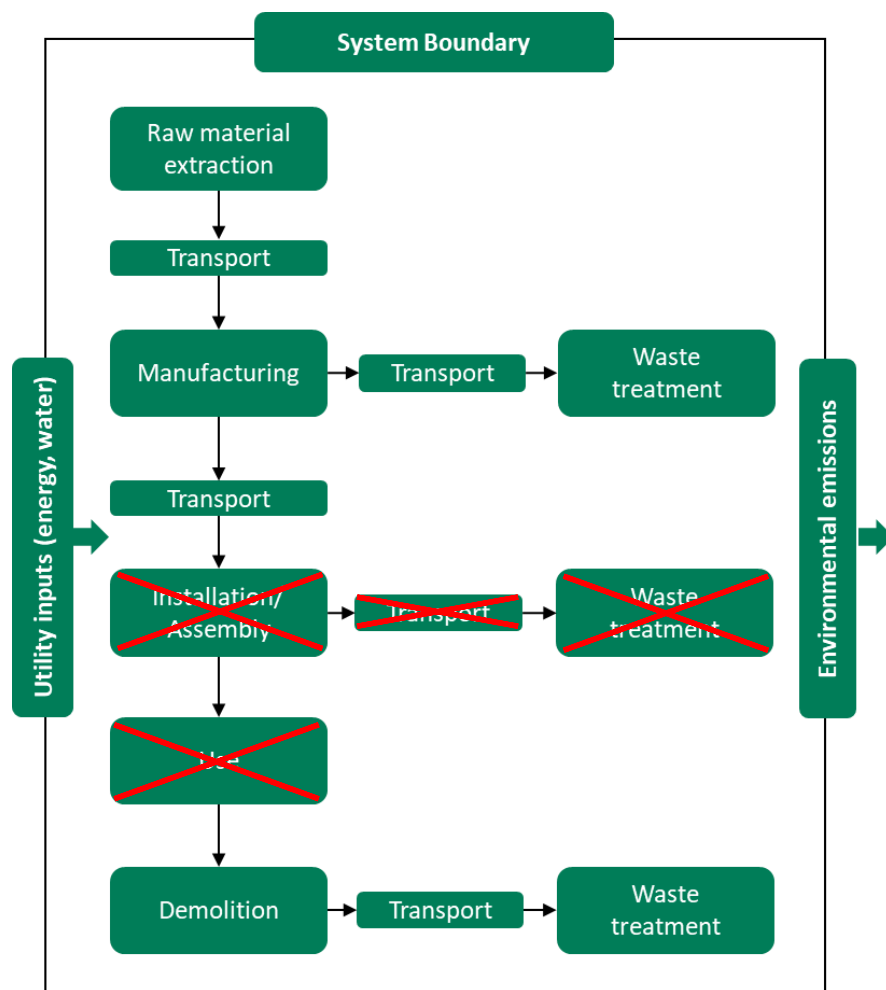
Declared unit	1 Tonne
Mass per declared unit	1000 kg
Functional unit	1 Tonne of Steel Reinforcing Bar

SYSTEM BOUNDARY

This EPD covers cradle to gate with options, modules C1-C4 and D scope with following modules; A1 (Raw material supply), A2 (Transport) and A3 (Manufacturing), A4 (Transport), as well as C1 (Deconstruction), C2 (Transport at end-of-life), C3 (Waste processing) and C4 (Disposal). In addition, module D - benefits and loads beyond the system boundary is included.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	D	D
x	x	x	x	MND	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x	x	x
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction /demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.



CUT-OFF CRITERIA

All raw materials, ancillary materials, packaging materials and associated transport to the plants, process energy, direct production waste, and emissions are included.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

A3: The production plant produces only one product (cut & bent reinforcement). The office electricity has been omitted from the total consumption. Unfortunately, the office is not metered separately so electricity consumption used by a similar office was used to calculate the average office employee use. This was calculated at 755.66 kWh per person per annum. There are 14 employees within the Thames Reinforcements office therefore approximately 10,579.25 kWh of the metered electricity consumption was for office use.

A4: The majority of purchased rebar is sent to construction sites across Greater London. This is estimated to be 90km.

AVERAGES AND VARIABILITY

A1: A tonne of steel rebar would be produced from product from one shipment and therefore one supplier. During 2019, Thames Reinforcements used ten suppliers. For the purpose of the EPD, data has been extrapolated to create an average amount of steel from each supplier to equal one tonne. This is so the data considered the varying transported distances (A2). The model uses generic data for recycled European reinforced steel bars.

ENVIRONMENTAL IMPACT DATA

NOTE: ENVIRONMENTAL IMPACTS - EN 15804+A1, CML / ISO 21930 AND TRACI 2.1. / ISO 21930 ARE PRESENTED IN ANNEX.

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Climate change – total	kg CO2e	6,5E2	5,07E1	9,61E0	7,1E2	7,77E0	MND	MND	MND	MND	MND	MND	MND	MND	6,58E1	2,1E1	8,21E0	1,05E-1	0E0
Climate change – fossil	kg CO2e	6,51E2	5,07E1	9,66E0	7,11E2	7,85E0	MND	MND	MND	MND	MND	MND	MND	MND	6,58E1	2,1E1	8,2E0	1,05E-1	0E0
Climate change – biogenic	kg CO2e	-1,42E0	-2,39E-2	-6,01E-2	-1,51E0	2,34E-4	MND	MND	MND	MND	MND	MND	MND	MND	7,87E-2	6,25E-4	6,39E-3	1,44E-4	0E0
Climate change – LULUC	kg CO2e	7,63E-1	3,14E-2	9,97E-3	8,04E-1	2,46E-3	MND	MND	MND	MND	MND	MND	MND	MND	8,17E-3	6,59E-3	3,07E-3	3,13E-5	0E0
Ozone depletion	kg CFC11e	7,3E-5	1,09E-5	9,58E-7	8,49E-5	1,93E-6	MND	MND	MND	MND	MND	MND	MND	MND	1,52E-5	5,15E-6	2,77E-6	4,34E-8	0E0
Acidification	mol H+e	2,78E0	8,63E-1	3,74E-2	3,68E0	1,92E-2	MND	MND	MND	MND	MND	MND	MND	MND	1,39E-1	5,15E-2	3,46E-2	4,97E-4	0E0
Eutrophication, aquatic freshwater	kg PO4e	4,1E-1	2,99E-3	2,22E-3	4,15E-1	5,84E-4	MND	MND	MND	MND	MND	MND	MND	MND	3,11E-3	1,56E-3	1,01E-3	1,09E-5	0E0
Eutrophication, aquatic marine	kg Ne	5,27E-1	1,9E-1	7,52E-3	7,24E-1	2,75E-3	MND	MND	MND	MND	MND	MND	MND	MND	2,36E-2	7,37E-3	7,14E-3	9,73E-5	0E0
Eutrophication, terrestrial	mol Ne	5,29E0	2,11E0	7,99E-2	7,47E0	2,94E-2	MND	MND	MND	MND	MND	MND	MND	MND	2,54E-1	7,87E-2	7,72E-2	1,06E-3	0E0
Photochemical ozone formation	kg NMVOCe	1,99E0	5,74E-1	2,74E-2	2,59E0	1,62E-2	MND	MND	MND	MND	MND	MND	MND	MND	1,79E-1	4,33E-2	3,05E-2	4,33E-4	0E0
Abiotic depletion, minerals & metals	kg Sbe	7,99E-3	8,06E-4	4,57E-4	9,26E-3	1,4E-4	MND	MND	MND	MND	MND	MND	MND	MND	2,07E-4	3,74E-4	1,17E-4	9,62E-7	0E0
Abiotic depletion of fossil resources	MJ	1,07E4	7,03E2	1,86E2	1,15E4	1,26E2	MND	MND	MND	MND	MND	MND	MND	MND	9,73E2	3,37E2	1,89E2	2,93E0	0E0
Water use	m3e depr.	9,5E4	3,92E2	5,18E2	9,59E4	9,76E1	MND	MND	MND	MND	MND	MND	MND	MND	2,49E2	2,61E2	1,23E2	9,07E-1	0E0

EN 15804+A2 disclaimer for Abiotic depletion and Water use indicators and all optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	6,82E-5	2,46E-6	3,73E-7	7,11E-5	6,73E-7	MND	MND	MND	MND	MND	MND	MND	MND	1,59E-5	1,8E-6	1,15E-6	1,82E-8	0E0
Ionizing radiation, human health	kBq U235e	1,66E2	3,44E0	3,56E0	1,73E2	6,49E-1	MND	MND	MND	MND	MND	MND	MND	MND	4,49E0	1,74E0	9,4E-1	1,32E-2	0E0
Eco-toxicity (freshwater)	CTUe	3,18E2	1,7E1	1,34E0	3,36E2	5,37E0	MND	MND	MND	MND	MND	MND	MND	MND	6,9E0	1,44E1	2,54E0	1,83E-2	0E0
Human toxicity, cancer effects	CTUh	7,1E-6	2,43E-8	4,06E-9	7,12E-6	2,27E-9	MND	MND	MND	MND	MND	MND	MND	MND	1,91E-8	6,07E-9	3,75E-9	4,07E-11	0E0
Human toxicity, non-cancer effects	CTUh	4,51E-4	6,86E-7	3,44E-7	4,52E-4	1,54E-7	MND	MND	MND	MND	MND	MND	MND	MND	4,79E-7	4,11E-7	1,5E-7	1,55E-9	0E0
Land use related impacts/soil quality	-	1,36E3	3,93E2	2,49E1	1,78E3	1,9E2	MND	MND	MND	MND	MND	MND	MND	MND	3,15E2	5,09E2	2,9E2	5E0	0E0

EN 15804+A2 disclaimer for Ionizing radiation, human health. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renewable PER used as energy	MJ	1,125E3	7,615E0	2,051E1	1,153E3	1,603E0	MND	MND	MND	MND	MND	MND	MND	MND	6,434E0	4,289E0	2,383E0	2,381E-2	0E0
Renewable PER used as materials	MJ	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Total use of renewable PER	MJ	1,125E3	7,615E0	2,051E1	1,153E3	1,603E0	MND	MND	MND	MND	MND	MND	MND	MND	6,434E0	4,289E0	2,383E0	2,381E-2	0E0
Non-renew. PER used as energy	MJ	1,34E4	7,128E2	2,321E2	1,434E4	1,284E2	MND	MND	MND	MND	MND	MND	MND	MND	9,813E2	3,435E2	1,927E2	2,963E0	0E0
Non-renew. PER used as materials	MJ	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Total use of non-renewable PER	MJ	1,34E4	7,128E2	2,321E2	1,434E4	1,284E2	MND	MND	MND	MND	MND	MND	MND	MND	9,813E2	3,435E2	1,927E2	2,963E0	0E0
Use of secondary materials	kg	1,14E3	3,27E-1	-2,64E-2	1,14E3	4,4E-2	MND	MND	MND	MND	MND	MND	MND	MND	-2,43E0	1,18E-1	-2,81E0	7,98E-4	0E0
Use of renewable secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of non-renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m3	6,43E0	1,02E-1	8,41E-2	6,62E0	2,65E-2	MND	MND	MND	MND	MND	MND	MND	MND	2,41E-1	7,09E-2	1,68E-1	3,22E-3	0E0

PER abbreviation stands for primary energy resources

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	Kg	1,85E2	8,4E-1	5,31E-1	1,86E2	1,24E-1	MND	MND	MND	MND	MND	MND	MND	MND	1,08E0	3,31E-1	2,12E-1	2,76E-3	0E0
Non-hazardous waste	Kg	1,8E3	3,61E1	2,98E1	1,86E3	1,37E1	MND	MND	MND	MND	MND	MND	MND	MND	1,02E3	3,66E2	9,91E2	2,01E1	0E0
Radioactive waste	Kg	5,09E-2	4,91E-3	1E-3	5,68E-2	8,75E-4	MND	MND	MND	MND	MND	MND	MND	MND	6,8E-3	2,34E-3	1,26E-3	1,95E-5	0E0

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for reuse	Kg	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	Kg	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	9,8E2	0E0	0E0
Materials for energy recovery	Kg	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

KEY INFORMATION TABLE (RTS) – KEY INFORMATION PER KG OF PRODUCT

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Climate change – total	kg CO2e	6,5E-1	5,07E-2	9,61E-3	7,1E-1	7,85E-3	MND	MND	MND	MND	MND	MND	MND	MND	6,58E-2	2,1E-2	8,21E-3	1,05E-4	0E0
Abiotic depletion, minerals & metals	kg Sbe	7,99E-6	8,06E-7	4,57E-7	9,26E-6	1,4E-7	MND	MND	MND	MND	MND	MND	MND	MND	2,07E-7	3,74E-7	1,17E-7	9,62E-10	0E0
Abiotic depletion of fossil resources	MJ	1,07E1	7,03E-1	1,86E-1	1,15E1	1,26E-1	MND	MND	MND	MND	MND	MND	MND	MND	9,73E-1	3,37E-1	1,89E-1	2,93E-3	0E0
Water use	m3e depr.	6,43E-3	1,02E-4	8,41E-5	6,62E-3	2,65E-5	MND	MND	MND	MND	MND	MND	MND	MND	2,41E-4	7,09E-5	1,68E-4	3,22E-6	0E0
Use of secondary materials	kg	1,14E0	3,27E-4	-2,64E-5	1,14E0	4,4E-5	MND	MND	MND	MND	MND	MND	MND	MND	-2,43E-3	1,18E-4	-2,81E-3	7,98E-7	0E0
Biogenic carbon content in product	kg C	N/A	N/A	0E0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Biogenic carbon content in packaging	kg C	N/A	N/A	0E0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCENARIO DOCUMENTATION

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Market for electricity, medium voltage, United Kingdom, 2019 Ecoinvent 3.6
Electricity CO _{2e} / kWh	0.37
District heating data source and quality	N/a
District heating CO _{2e} / kWh	N/a

Transport scenario documentation

Scenario parameter	Value
A4 specific transport CO _{2e} emissions, kg CO _{2e} / tkm	0.0863
A4 average transport distance, km	90
Transport capacity utilization, %	100
Bulk density of transported products, kg/m ³	7850
Volume capacity utilisation factor for nested packaged products	1

End of life scenario documentation

Scenario parameter	Value
Collection process – kg collected separately	1000
Collection process – kg collected with mixed waste	-
Recovery process – kg for re-use	-
Recovery process – kg for recycling	980
Recovery process – kg for energy recovery	-
Disposal (total) – kg for final deposition	20
Scenario assumptions e.g. transportation	-

BIBLIOGRAPHY

ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations. Principles and procedures.

ISO 14040:2006 Environmental management. Life cycle assessment. Principles and frameworks.

ISO 14044:2006 Environmental management. Life cycle assessment. Requirements and guidelines.

Ecoinvent database v3.6 and One Click LCA database.

EN 15804:2012+A2:2019 Sustainability in construction works – Environmental product declarations – Core rules for the product category of construction products.

RTS PCR EN 15804:2019 RTS PCR in line with EN 15804+A2. Published by the Building Information Foundation RTS 1.6.2020.

ABOUT THE MANUFACTURER

Thames Reinforcements is a stockist and fabricator of concrete reinforcement bar, mesh and accessories. We provide a rapid & cost-effective service to building and civil engineering contractors throughout the UK.

EPD AUTHOR AND CONTRIBUTORS

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EPD program operator	Rakennustietosäätiö RTS Building Information Foundation RTS Malminkatu 16 A 00100 Helsinki http://cer.rts.fi
Background data	This EPD is based on Ecoinvent 3.6 (cut-off) and One Click LCA databases. Background data points updated for year 2019
LCA software	The LCA and EPD have been created using One Click LCA Pre-Verified EPD Generator for Primary Steel and Aluminium and all Metal-Based Products

ANNEX

ENVIRONMENTAL IMPACTS - EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global warming potential	kg CO2e	6,35E2	5,03E1	9,36E0	6,95E2	7,77E0	MND	MND	MND	MND	MND	MND	MND	MND	6,52E1	2,08E1	8,07E0	1,03E-1	0E0
Depletion of stratospheric ozone	kg CFC11e	6,68E-5	8,64E-6	9,28E-7	7,64E-5	1,53E-6	MND	MND	MND	MND	MND	MND	MND	MND	1,2E-5	4,1E-6	2,2E-6	3,44E-8	0E0
Acidification	kg SO2e	2,4E0	7,02E-1	3,22E-2	3,13E0	1,67E-2	MND	MND	MND	MND	MND	MND	MND	MND	1,18E-1	4,46E-2	2,89E-2	4,17E-4	0E0
Eutrophication	kg PO43e	1,49E0	7,73E-2	1,05E-2	1,58E0	3,37E-3	MND	MND	MND	MND	MND	MND	MND	MND	2,25E-2	9,01E-3	6,44E-3	8,06E-5	0E0
Photochemical ozone formation	kg C2H4e	2,26E-1	2,1E-2	1,69E-3	2,48E-1	9,59E-4	MND	MND	MND	MND	MND	MND	MND	MND	1,07E-2	2,57E-3	1,98E-3	3,06E-5	0E0
Abiotic depletion of non-fossil res.	kg Sbe	7,99E-3	8,06E-4	4,57E-4	9,26E-3	1,4E-4	MND	MND	MND	MND	MND	MND	MND	MND	2,07E-4	3,74E-4	1,17E-4	9,62E-7	0E0
Abiotic depletion of fossil resources	MJ	1,07E4	7,03E2	1,86E2	1,15E4	1,26E2	MND	MND	MND	MND	MND	MND	MND	MND	9,73E2	3,37E2	1,89E2	2,93E0	0E0

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Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global warming potential	kg CO2e	6,3E2	5,03E1	9,39E0	6,9E2	7,77E0	MND	MND	MND	MND	MND	MND	MND	MND	6,49E1	2,08E1	8,04E0	1,03E-1	0E0
Ozone depletion	kg CFC11e	8,78E-5	1,15E-5	1,18E-6	1E-4	2,04E-6	MND	MND	MND	MND	MND	MND	MND	MND	1,61E-5	5,46E-6	2,94E-6	4,58E-8	0E0
Acidification	kg SO2e	2,31E0	7,24E-1	3,16E-2	3,07E0	1,57E-2	MND	MND	MND	MND	MND	MND	MND	MND	1,15E-1	4,21E-2	2,91E-2	4,17E-4	0E0
Eutrophication	kg Ne	3,28E0	6,03E-2	2,06E-2	3,36E0	7,39E-3	MND	MND	MND	MND	MND	MND	MND	MND	4,76E-2	1,98E-2	1,23E-2	1,54E-4	0E0
Photochemical Smog Formation	kg O3e	2,79E1	1,2E1	4,02E-1	4,03E1	1,65E-1	MND	MND	MND	MND	MND	MND	MND	MND	1,45E0	4,43E-1	4,41E-1	6,03E-3	0E0
Depletion of non-renewable energy	MJ	8,9E2	1,03E2	2,15E1	1,01E3	1,82E1	MND	MND	MND	MND	MND	MND	MND	MND	1,44E2	4,88E1	2,7E1	4,26E-1	0E0