

POWERTEX

SUSTAINABILITY FACT SHEET

POWERTEX PWE r-PET Webbing Sling



Fact sheet Trucker r-PET

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1 Carbon Footprint Summary: Powertex PRS Roundsling, PWE Webbing sling with eye and Trucker Web lashing

1.1 Background

Powertex is an Axel Johnson International - Lifting Solutions Group brand and a leading provider of lifting, lashing, and fall protection equipment. Lifting Solutions Group is a global player in lifting equipment, steel wire rope, height safety, and services. It operates as a group of companies that supply wire rope, hoists, overhead cranes, and other lifting products together with connected services. The vision is to be the preferred provider of lifting solutions, setting standards for a more sustainable future. To do so, gaining additional product insights from a sustainability perspective is important, and performing Carbon footprint calculations is part of this ambition.

A consultancy company specializing in sustainability and the environment calculated and quality-checked the carbon footprint, following internationally recognized standards. While the calculation provides valuable insights into our environmental impact, it also highlights areas for improvement and further investigation. The results of this calculation will guide our future sustainability efforts, including initiatives to reduce our emissions and offset our carbon footprint.

1.2 Result

Virgin PET production contributes to significant emissions and is a hotspot in virgin PET round sling, webbing sling, and web lashing production systems. In particular, using virgin materials such as PTA and EG contributes to large amounts of virgin PET CO₂e emissions. The results also showed that the metal component is a hotspot for web-lashing production systems in virgin and rPET production systems. The use of steel contributes to large amounts of CO₂e emissions for web lashings.

1.3 Methodology

ISO 14067 is applied. This method fully aligns with the Life Cycle Assessment (LCA) structure. It is carried out in four phases: Goal and scope definition, Life cycle inventory (LCI), Life cycle impact assessments (LCIA), and interpretation.

1.4 Goal of the Study

To provide a climate impact analysis of the product and to understand the impact of using recycled PET instead of virgin PET.

1.5 Functional Unit(s)

One round sling / One web lashing / One webbing sling.

1.6 Impact categories and impact assessment methods

A single-issue approach is used, focusing only on climate change impact. Global Warming Potential (GWP) with a 100-year time horizon is used as the impact category under investigation.

1.7 Scope

Cradle-to-gate. Allocation by cut-off method is commonly applied in LCA studies investigating systems dealing with recycled input materials. This study uses this allocation method. Hence, the system for rPET roundslings and web lashings starts with the collection of plastic bottles.

1.8 Emission Factors

A freight company provided primary data on CO₂e emissions related to transportation from the manufacturer to the central warehouse in Maastricht. For all other transports not included in the freight company's data, trucks were assumed to be used. The fuel type, class, cargo capacity, and fuel consumption of trucks were based on information from a recognized automotive technology and research center on the most common truck used in the freight sector.

The emission factor used for calculating CO₂e emissions from electricity use is based on an average grid production mix for the year 2021, following recommendations from the ISO Standard. The emission factors used for material and oil inputs are based on global factors suitable for production happening outside of Europe, as documented in the Ecoinvent database. This decision was made due to the lack of country-specific factors for the different materials in the Ecoinvent database.

The emission factor for dye used in the calculations was based on assumptions from an Ecoinvent dataset about the chemical components in the dye, and the amount of these components in the dye.

All other emission factors were calculated using recognized databases.

1.9 Data assumptions and limitations

This study's important limitations include the lack of geographically specific data for the country of production for some emission factors used in this study. Specifically, Ecoinvent data sets cover a large geography, which may affect the emission factor value compared to more geographically specific data.

2 Factsheet Powertex PWE r-PET Webbing Sling

2.1 Product details

Product name: Powertex PWE r-PET Webbing Slings.

The product range currently consists of WLL 1t up to 3t and length variants from 1 to 6 meters.

2.2 Supplier details

Supplier name	(undisclosed)
Has the supplier signed the Axel Johnson International Code of Conduct?	Yes
Did the supplier pass the sustainability audit?	Yes
Last date of Sustainability Audit?	06-12-2022
Audit score	Medium-high performance
Audit conducted by	Axel Johnson International China
Products imported into the EU by	SCM Citra Oy Asessorinkatu 3-7, 20780 Kaarina, Finland

2.3 Sustainability Enhancements

What are the sustainability enhancements?

- 100% of the polyester is exchanged from virgin polyester to recycled polyester made from used and recycled PET bottles.
- The plastic wraps that come around each new product are replaced by cardboard wraps

How much better is the sustainability performance?

When choosing the r-PET variant of the Powertex PWE Webbing Sling, cradle-to-gate CO₂e is reduced by 52% to 60% (detailed view below).

How is the improved performance substantiated?

A third party (2050 Consulting AB, Stockholm) did the research and subsequent CO₂e calculations in 202 from a cradle-to-gate perspective according to ISO 14067. For recycled material, the cut-off approach was used.

2.4 Calculations build-up example

The table below shows an example of the steps included in the calculations.

Process step	r-PET Webbing Sling 3t/3m	Virgin PET Webbing Sling 3t/3m
Granulate Production	0,35	4,48
Yarn Production	0,41	0,40
Manufacturing	1,51	1,43
Packaging	0,10	0,13
Transport	0,32	0,29
Total for the finished product	2,70	6,74
Total reduction (CO2e)	60%	

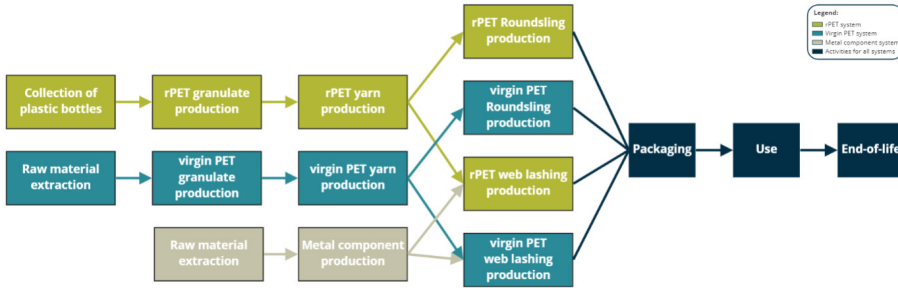
2.5 CO2e Reductions in kg and percentage for each product

Part code	Description	VIRGIN PET kg CO2e	r-PET kg CO2e	Reductions kg CO2e	Reductions %
340100100100330	Webbing sling eye Powertex 1 ton EWL 1.0 m r-PET	0,91	0,44	0,47	52%
340100100200330	Webbing sling eye Powertex 1 ton EWL 2.0 m r-PET	1,55	0,69	0,86	55%
340100100250330	Webbing sling eye Powertex 1 ton EWL 3.0 m r-PET	2,24	1,00	1,24	56%
340100100300330	Webbing sling eye Powertex 1 ton EWL 4.0 m r-PET	2,83	1,20	1,63	58%
340100100400330	Webbing sling eye Powertex 1 ton EWL 6.0 m r-PET	4,36	2,00	2,35	54%
340100200100330	Webbing sling eye Powertex 2 ton EWL 1.0 m r-PET	1,70	0,77	0,93	55%
340100200200330	Webbing sling eye Powertex 2 ton EWL 2.0 m r-PET	2,87	1,20	1,67	58%
340100200300330	Webbing sling eye Powertex 2 ton EWL 3.0 m r-PET	4,23	1,81	2,41	57%
340100200400330	Webbing sling eye Powertex 2 ton EWL 4.0 m r-PET	5,63	2,48	3,14	56%
340100200600330	Webbing sling eye Powertex 2 ton EWL 6.0 m r-PET	8,19	3,61	4,58	56%
340100300100330	Webbing sling eye Powertex 3 ton EWL 1.0 m r-PET	2,76	1,27	1,49	54%
340100300200330	Webbing sling eye Powertex 3 ton EWL 2.0 m r-PET	4,68	1,91	2,77	59%
340100300300330	Webbing sling eye Powertex 3 ton EWL 3.0 m r-PET	6,75	2,72	4,03	60%
340100300400330	Webbing sling eye Powertex 3 ton EWL 4.0 m r-PET	9,02	3,82	5,20	58%
340100300600330	Webbing sling eye Powertex 3 ton EWL 6.0 m r-PET	12,60	5,16	7,45	59%

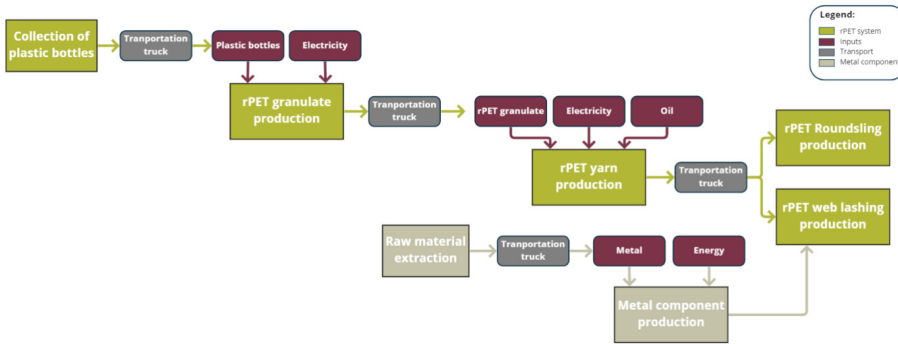
3 Visualization of the LCA Process

3.1 System Boundaries

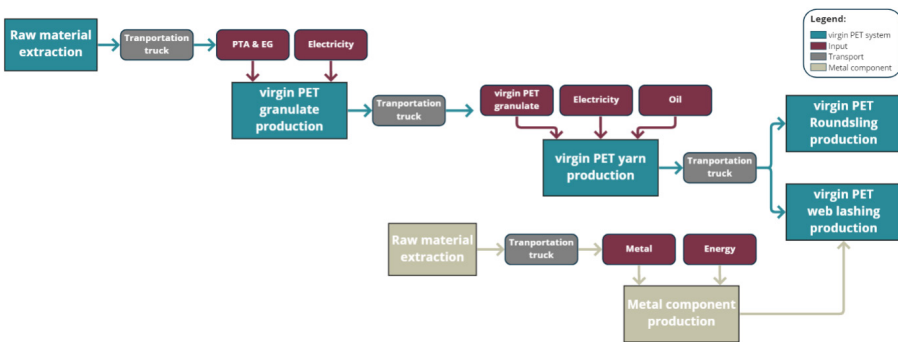
The study used a cradle-to-gate perspective and considered CO₂e emissions from all activities during the lifecycle of textile slings and web lashings. The flowchart below shows an overview of the production systems and their activities.



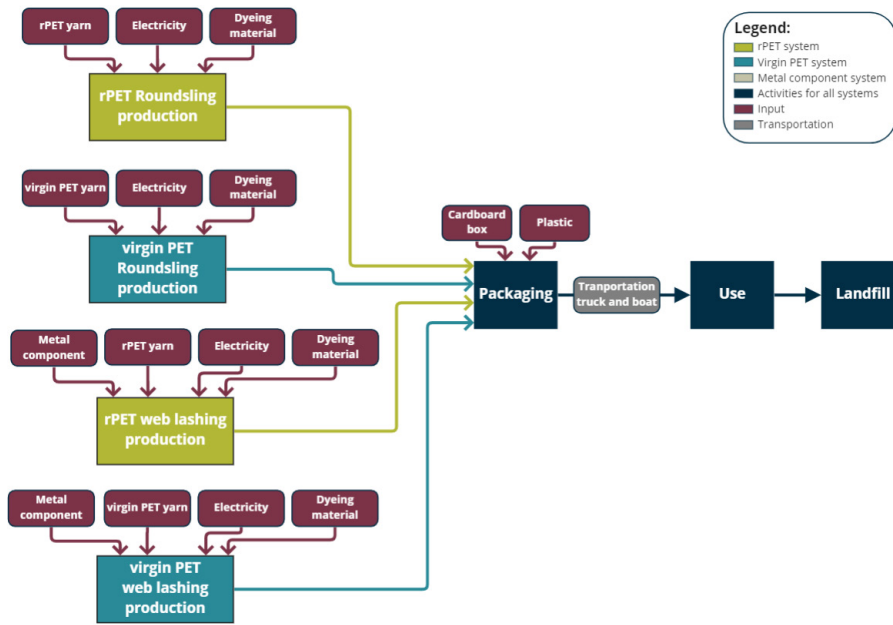
3.2 Flowchart of r-PET input materials for textile slings and web lashings



3.3 Flowchart of virgin PET input materials for textile slings and web lashings



3.4 Flowchart for production, packaging, and use.



4 About

4.1 About Powertex

Powertex is an Axel Johnson International - Lifting Solutions Group brand and a leading provider of lifting, lashing, and fall protection equipment.

To read more on Powertex products and brand information, visit <https://www.powertex-products.com>

4.2 About Lifting Solutions Group

Lifting Solutions Group is a global player in lifting equipment, steel wire rope, height safety equipment and related services. The group today has 24 companies in 19 countries across Europe, with annual sales of EUR 420 million. To read more about the companies in Lifting Solutions, visit <https://liftingsolutionsgroup.com/>

4.3 About the Aspire range™ - A more sustainable choice

The Aspire range™ represents Liftings Solutions' dedication to offering more sustainable choices within the lifting industry. Lifting Solutions, an Axel Johnson International business group, recognizes the urgent need to reduce the negative impact on our climate and the use of raw materials. The Aspire range™ is a carefully curated product selection that meets sustainability criteria without compromising quality or safety.

Lifting Solutions proactively searches and develops new products that meet our Aspire criteria, ensuring they undergo thorough verification and approval by the Aspire product board. The management team confirms the fulfillment of these criteria, guaranteeing that every product in the Aspire range™ is a better choice for the environment.

By choosing products from the Aspire range™, customers make making a conscious decision to support sustainability and reduce environmental impact.

For more information on our sustainability efforts and to explore our Aspire range™, visit the [webpage Sustainability - Our Aspire range \(liftingsolutionsgroup.com\)](#)

4.4 About SCM Citra Oy

SCM Citra Oy is a 100% subsidiary of Axel Johnson International AB and is the legal entity used for importing and distributing Powertex products.

5 Disclaimer

The information provided in this sustainability fact sheet is based on a comprehensive climate Life Cycle Assessment (LCA) of the products listed. While every effort has been made to ensure the accuracy and reliability of the data, the results are subject to the following limitations and conditions:

- **Data Sources:** The LCA results are based on data available at the time of the assessment. Changes in production processes, raw material sourcing, and other factors may affect the accuracy of the results over time.
- **Assumptions and Estimates:** The LCA includes certain assumptions and estimates that may influence the outcomes. These assumptions are based on industry standards and best practices but may not fully capture all variables.
- **Scope and Boundaries:** The scope and boundaries of the LCA are defined by specific criteria and may not encompass all environmental impacts. The results should be interpreted within the context of the defined scope.
- **Comparative Analysis:** The LCA results are specific to the products assessed and may not be directly comparable to other products or assessments without considering differences in methodology, scope, and data quality.
- **Intended Use:** This fact sheet is intended for informational purposes only and should not be used as the sole basis for making decisions regarding product selection, procurement, or environmental impact assessments.
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