



MAILER™

from



Environmental Product Declaration

In accordance with ISO 14025

| | |
|---------------------------------|--|
| PROGRAMME: | The International EPD® System, www.environdec.com |
| PROGRAMME OPERATOR: | EPD International AB |
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EPD Programme Information



Product category rules (PCR): Packaging PCR 2019:13 Version 1.1 Valid until: 2023-11-08

PCR review was conducted by: Anna Bortoluzzi, Università degli Studi di Milano - Department of Chemistry, anna.bortoluzzi@unimi.it

Independent third-party verification of the declaration and data, according to ISO 14025:2006:

EPD process certification EPD verification

Third party verifier: Arka Pandit, Maggie Wildnauer, Brad McAllister
WAP Sustainability Consulting

In case of recognised individual verifiers:
Approved by: The International EPD® System

Procedure for follow-up of data during EPD validity involves third party verifier:

Yes No

Programme:

The International EPD® System
EPD International AB
Box 210 60
SE-100 31 Stockholm
Sweden
www.environdec.com
info@environdec.com

Owner of the EPD: IPG
Contact: Sustainability@itape.com

The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable.



EPD[®]



MAILER[™]

North America



PACKAGING
SOLUTIONS
WITH CURB
APPEAL.



IPG Company Information



Company



Product



Content Declaration



Environmental Performance



Additional Information

IPG is a recognized leader in the development, manufacture, and sale of a variety of paper and film-based pressure-sensitive and water-activated tapes, stretch and shrink films, protective packaging, woven and non-woven products and packaging machinery for industrial and retail use. Headquartered in Montreal, Quebec and Sarasota, Florida, IPG employs approximately 4,100 employees with operations in 33 locations, including 22 manufacturing facilities in North America, five in Asia and one in Europe.

Name and location of production site:

Curby Mailer product line is manufactured at IPG facility located at 1091 Carolina Pines Dr., Blythewood, South Carolina, 29016, United States.



IPG Facility, Blythewood, South Carolina



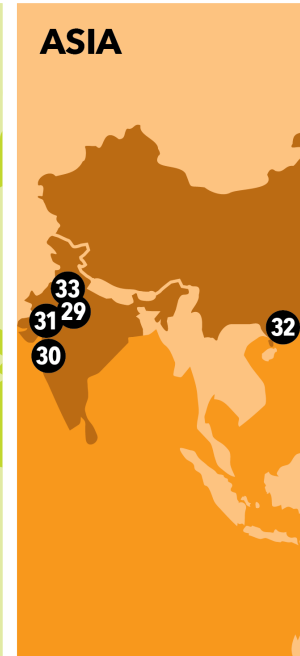
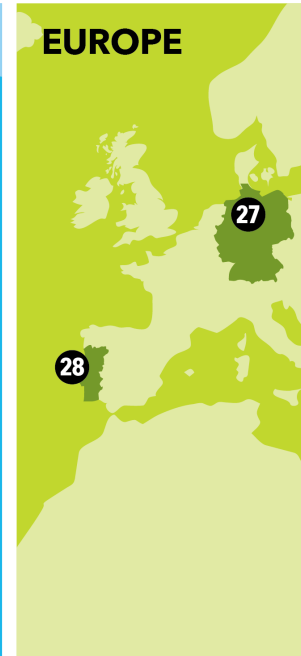
IPG Executive Headquarters, Sarasota, Florida



Our Locations



- Company 
- Product 
- Content Declaration 
- Environmental Performance 
- Additional Information 



NORTH AMERICA

- | | | |
|------------------------|----------------------|-----------------------|
| 1. Ansonia, CT ■ | 11. Corona, CA ● | 20. Salisbury, NC ● |
| 2. Atlanta, GA ● | 12. Cornwall, ON ● | 21. Sarasota, FL ☆ |
| 3. Bardstown, KY (2) ● | 13. Danville, VA ●▲ | 22. Schaumburg, IL ■ |
| 5. Blythewood, SC ● | 14. Delta, BC ● | 23. Springfield, OH ● |
| 6. Brighton, CO ● | 15. Everetts, NC ● | 24. Toronto, ON ● |
| 7. Carbondale, IL ● | 16. Marysville, MI ● | 25. Tremonton, UT ● |
| 8. Carlstadt, NJ ● | 17. Menasha, WI ● | 26. Truro, NS ● |
| 9. Carrollton, TX ● | 18. Midland, NC ● | |
| 10. Chicago, IL ● | 19. Montreal, QC ☆ | |

EUROPE

- 27. Flensburg, Germany ▲
- 28. Porto, Portugal ●

ASIA

- 29. Chopanki, India ●
- 30. Daman, India ●
- 31. Dahej, India ●
- 32. Jiangmen City, China ●
- 33. Karoli, India ●

● Manufacturing
 ■ Machine Assembly
 ▲ Distribution
☆ Corporate Headquarters
 ☆ Executive Headquarters



Our Vision



VISION[®] ipg

— TO BE THE —
GLOBAL LEADER
— IN —
PACKAGING
— AND —
PROTECTIVE
— SOLUTIONS —

VALUES

PASSION PEOPLE INTEGRITY
PERFORMANCE TEAMWORK

STRATEGY

| | |
|-----------------------------------|----------------------------------|
| STRENGTHEN THE PRODUCT BUNDLE | EXPAND THE GLOBAL FOOTPRINT |
| EMBRACE SUSTAINABILITY | DRIVE OPERATIONAL EXCELLENCE |



Our Commitment

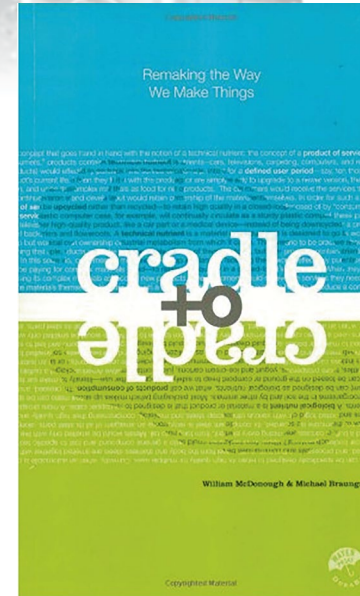


“Our longstanding and simple corporate mantra of “just do the right thing” is as relevant today as ever. Embracing sustainability is one of the areas where we believe IPG can impact our employees, the communities where we live, our customers including end-users of our products, our suppliers, and our shareholders.” said Greg Yull, President and CEO of IPG. “We will continue to do the right thing for People, Planet and Profitability, bringing a sustainable future closer through our actions and impacts every day.”

IPG subscribes to externally developed economic, environmental, and social charters, principles and other initiatives that align with our sustainability efforts.



Working with Experts



William McDonough

- Co-author of Cradle to Cradle
- Leader in circular economy
- Manager of MBDC, Cradle to Cradle Certified® assessors responsible for complex evaluations and monitoring for improvement

“Making the transition from less bad to more good”

Jay Bolus, VP Sustainability, IPG



Multi-Attribute Certifications



- Company
- Product
- Content Declaration
- Environmental Performance
- Additional Information



- material health**
- product circularity**
- clean air & climate protection**
- water & soil stewardship**
- social fairness**



Our Circular Economy



Eliminating the concept of waste

Our Sustainable Product Design and Development Vision Statement directs the application of “safe and circular” concepts to our products’ design and development. We have committed to eliminating toxic substances from new and existing products and incorporating recycled and renewable materials while maintaining product performance. Achieving a circular economy is a long-term objective, and we are dedicated to working towards it.

The Circular Economy emulates natural life cycles, and eliminates the concept of waste so that all products and their components become “food” for other systems- either biological (returning to nature) or technical (returning to industry).



Curby Products



Company



Product



Content Declaration



Environmental Performance



Additional Information

- Curbside pickup friendly products
- **“Widely Recyclable”** and part of How2Recycle
- FTC Green Guides Definition: When recycling facilities are available to a substantial majority of consumers or communities where the item is sold, marketers can make unqualified **recyclable** claims. The term “substantial majority,” as used in this context, means at least 60 percent.
- **Easy** homeowner **compliance**
- **Additive** to the recycling value stream



PACKAGING SOLUTIONS WITH CURB APPEAL.



Curby Mailers



Company



Product



Content Declaration



Environmental Performance



Additional Information

Curby Mailer^{HD}

- **100% Curbside Recyclable Mailer**
- **"Edge to Edge and Seam to Seam"** cushioning
- **Heavy Duty** paper construction ideal for shipping fragile items
- A "one to one" **renewable replacement** for single use plastic mailers
- **"How to Recycle - paper bag"** approved
- Employs a **patented** production process
- Made in the USA, with US and Globally Sourced Materials

Curby MailerTM

- **100% Curbside Recyclable Mailer**
- **"Edge to Edge and Seam to Seam"** cushioning
- A "one to one" **renewable replacement** for single use plastic mailers
- **"How to Recycle - paper bag"** approved
- Employs a **patented** production process
- Made in the USA, with US and Globally Sourced Materials



Made from Recyclable Paper!



Cradle to Cradle Certification



Company



Product



Content Declaration



Environmental Performance



Additional Information



Cradle to Cradle Certification is a rigorous auditing process across five critical performance categories: material health, product circularity, clean air and climate protection, water and soil stewardship, and social fairness. A product is assigned an achievement level (Bronze, Silver, Gold, Platinum) for each category. A product's lowest category achievement also represents its overall certification level.

In an ongoing effort to provide the market with sustainable packaging alternatives, IPG® has implemented the demanding standards held under the Cradle to Cradle certification process.

William McDonough and Dr. Michael Braungart first introduced Cradle to Cradle® as a circular design philosophy in the 1990s. Together, they founded the Cradle to Cradle Products Innovation Institute in 2010. The institute is an independent, non-profit organization whose mission is dedicated to transforming the safety, health and sustainability of products through the administration of the Cradle to Cradle Certified® Product Standard.

Curby Mailer^{HD}

As of August 2021, IPG's [Curby Mailer^{HD}](#) is Cradle to Cradle Certified® Silver. The latest and most innovative protective mailer on the market, the Curby Mailer^{HD} contains 60% recycled content, minimum 42% post consumer. Its integrated honeycomb paper structure effectively replaces the air-filled bubbles in poly and poly-paper padded mailers.

Curby Mailer

As of February 2022, IPG's [Curby Mailer](#) is Cradle to Cradle Certified® Silver. An extension to the line, the Curby Mailer utilizes a lighter weight to reduce the individual weight of the mailer itself. The Curby Mailer replaces the air-filled bubbles in poly and poly-paper padded mailers and provides excellent cushioning with its integrated honeycomb paper structure.



Product Information - Curby Mailers



Company



Product name:

Curby Mailer

Product



Product description:

IPG Curby Mailers are made from recycled (HD version only) and recyclable paper and lined with an innovative honeycomb paper structure - a patent-pending cushioning material that offers substantial benefits over traditional wrapping materials, including bubble, bubble-on-demand, foam, and other paper materials. The Curby Mailer was designed to replace and offer better protection than traditional polybubble and Kraft mailers. The Curby Mailers are packaged in quantities of 80 mailers per carton for single use and the Curby Mailer^{HD} are packaged 60 mailers per carton for single use.

Content Declaration



UN CPC code:

UN CPC 3215

Environmental Performance



Geographical scope:

North America

Additional Information



Product Information



Company 

Product 

Content Declaration 

Environmental Performance 

Additional Information 



Curby Mailer^{HD} #2

Internal Length (in) - 9.5"
 External Width (in) - 11.375"
 Lip Depth (in) - 2"
 Weight - 4.05E-02kg or 40.50g

Curby Mailer #2

Internal Length (in) - 9.5"
 External Width (in) - 11.375"
 Lip Depth (in) - 2"
 Weight - 3.46E-02kg or 34.60g

Curby Mailer^{HD} #5

Internal Length (in) - 15.5"
 External Width (in) - 11.375"
 Lip Depth (in) - 2"
 Weight - 6.56E-02kg or 65.60g

Curby Mailer #5

Internal Length (in) - 15.5"
 External Width (in) - 11.375"
 Lip Depth (in) - 2"
 Weight - 5.63E-02kg or 56.30g

Curby Mailer^{HD} #6

Internal Length (in) - 18.5"
 External Width (in) - 13.375"
 Lip Depth (in) - 2"
 Weight - 9.15E-02kg or 91.50g

Curby Mailer #6

Internal Length (in) - 18.5"
 External Width (in) - 13.375"
 Lip Depth (in) - 2"
 Weight - 7.85E-02kg or 78.50g



LCA Information



- Company
- Product
- Content Declaration
- Environmental Performance
- Additional Information

Functional unit / declared unit:

per one mailer

Reference service life:

single use

Curby Mailer^{HD} Internal volume:

Curby Mailer^{HD} #2: 0.0028 m³

Curby Mailer^{HD} #5: 0.0057 m³

Curby Mailer^{HD} #6: 0.0098 m³

Curby Mailer Internal volume:

Curby Mailer #2: 0.0028 m³

Curby Mailer #5: 0.0057 m³

Curby Mailer #6: 0.0098 m³

Capacity:

2.3 kg max for all mailer sizes

Capacity:

2.3 kg max for all mailer sizes

Compression and destacking values:

Compression and stacking values required by the reference PCR are not shown because they are not considered relevant by the market/customer to define the function of the product subject to this EPD.

Time representativeness:

Primary data for electricity and scrap rate at IPG production facility and material composition and supplier information from 2021.

Database(s) and LCA software used:

GaBi LCA Software version 8.0

Sphera database 2021, US LCI Database 2021




LCA Information



Company 

Product 

Content Declaration 

Environmental Performance 

Additional Information 

Description of system boundaries:

| Life cycle stage | Life cycle module | Life cycle module group | EPD Type |
|--------------------|--------------------------------------|--------------------------|-------------------------------|
| | | | Functional Unit: Cradle-Grave |
| Upstream | A1) Raw material supply | A1-A3) Product stage | Declared |
| | A2) Transport | | Declared |
| | A3) Manufacturing | | Declared |
| Downstream | A4) Transport to forming or filling | A4-A5) Forming stage | Module not declared, MND |
| | A5) Forming | | Module not declared, MND |
| | B1) Filling operation | B1-B5) Use stage | Declared |
| | B2) Distribution of filled packaging | | Declared |
| | B3) Transport to reconditioning | | Module not declared, MND |
| | B4) Reconditioning | | Module not declared, MND |
| | B5) Transport to re-filling point | | Module not declared, MND |
| | C1) Disassembling/sorting | C1-C3) End of life stage | Declared |
| | C2) Transport to recovery/disposal | | Declared |
| C3) Final disposal | Declared | | |

Excluded lifecycle stages: Downstream Module

A4) Transport to Forming or Filling (Module Not Declared, MND)

Product is sold unfilled to the final consumer and shipped to distributor from manufacturing facility

A5) Packaging Forming (Module Not Declared, MND)

Product is formed during manufacturing

B3) Transport to Reconditioning (Module Not Declared, MND)

Product is single use

B4) Reconditioning (Module Not Declared, MND)

Product is single use

B5) Transport to Re-Filling Point (Module Not Declared, MND)

Product is single use



LCA Information

Curby Mailer^{HD} process system diagram



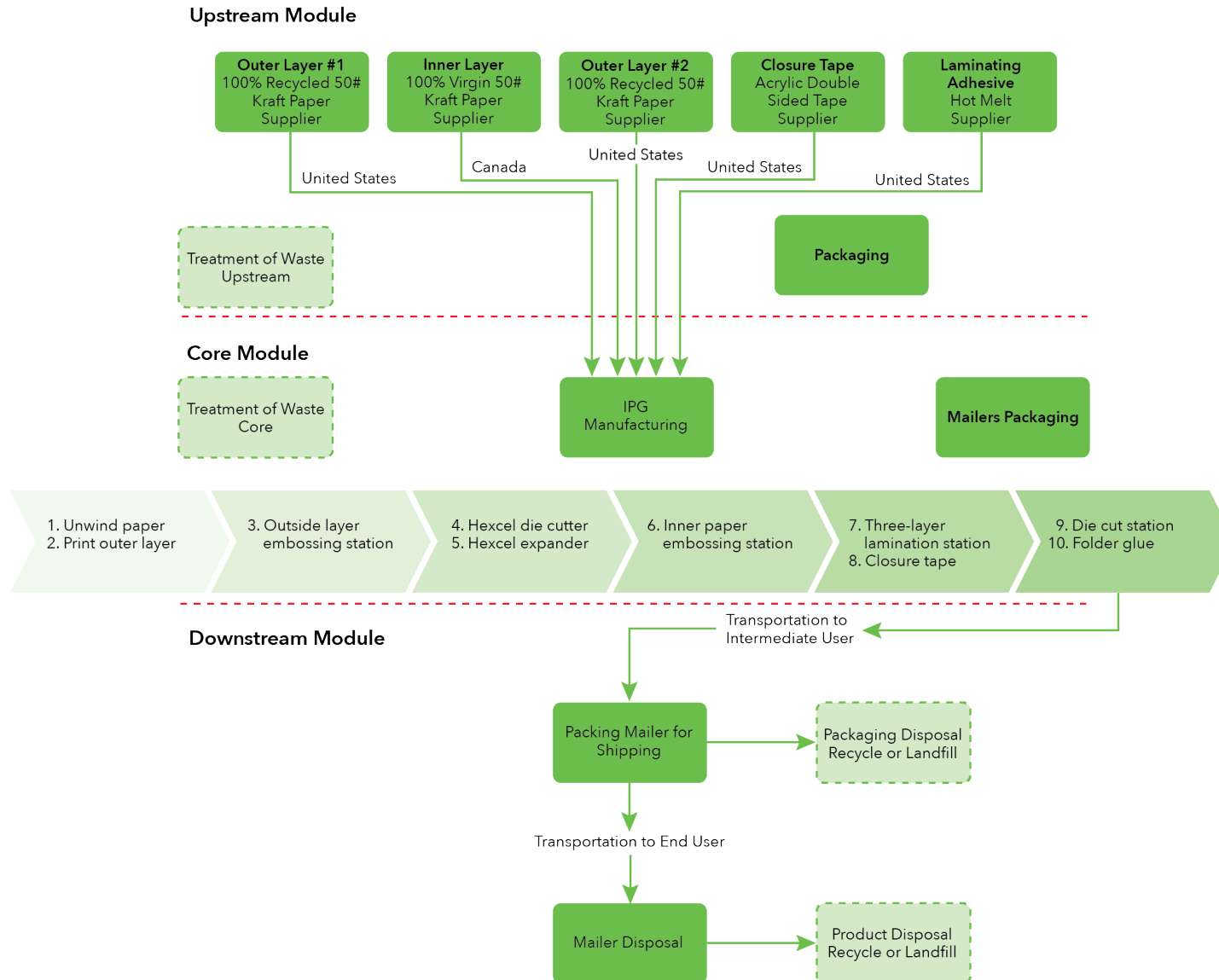
Company

Product

Content Declaration

Environmental Performance

Additional Information











Content Declaration: Curby Mailer^{HD} #2



- Company 
- Product 
- Content Declaration 
- Environmental Performance 
- Additional Information 

Product

Materials / chemical substances

| | |
|---|--|
|  100% Recycled 50# Kraft Paper 65%  2.62E-02 per mailer |  100% Virgin 50# Kraft Paper 26%  1.07E-02 per mailer |
|  Acrylic Double-Sided Tape 1%  4.70E-04 per mailer |  Hot Melt Adhesive 8%  3.14E-03 per mailer |

Packaging

Distribution/Consumer packaging:

Corrugated cardboard box weighing 9.45E-03 kg per mailer.

Recycled material

Provenience of recycled materials (pre-consumer or post-consumer) in the product:

100% Recycled 50# Kraft Paper

Environmental / hazardous properties

N/A



Environmental Performance: Curby Mailer^{HD} #2



Company



Product



Content Declaration



Environmental Performance



Additional Information



Potential Environmental Impact

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|--------------------------------------|------------------------|----------|------------|----------|----------|
| Global warming potential (GWP) | Fossil | kg CO ₂ eq. | 4.37E-02 | 1.84E-02 | 1.17E-02 | 7.38E-02 |
| | Biogenic | kg CO ₂ eq. | 5.05E-02 | 9.88E-05 | 3.64E-03 | 5.42E-02 |
| | Land use and land transformation | kg CO ₂ eq. | 4.43E-05 | 5.43E-07 | 4.41E-08 | 4.49E-05 |
| | TOTAL | kg CO ₂ eq. | 9.42E-02 | 1.85E-02 | 1.53E-02 | 1.28E-01 |
| Acidification potential (AP) | kg SO ₂ eq. | 1.36E-04 | 8.75E-05 | 5.57E-05 | 2.79E-04 | |
| Eutrophication potential (EP) | kg PO ₄ ³⁻ eq. | 4.25E-05 | 1.58E-05 | 1.33E-05 | 7.16E-05 | |
| Photochemical oxidant formation potential (POFP) | kg NMVOC eq. | 6.02E-07 | 1.05E-05 | 8.62E-06 | 1.97E-05 | |
| Abiotic depletion potential - Elements | kg Sb eq. | 9.42E-08 | 3.09E-10 | 1.38E-10 | 9.46E-08 | |
| Abiotic depletion potential - Fossil resources | MJ, net calorific value | 6.82E-01 | 2.31E-01 | 1.12E-01 | 1.03E+00 | |
| Water scarcity potential | m ³ eq. | 2.88E-04 | 3.64E-06 | 1.50E-06 | 2.93E-04 | |

Use of Resources

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|-------------------------|-------------------------|----------|------------|----------|----------|
| Primary energy resources - Renewable | Use as energy carrier | MJ, net calorific value | 8.94E-01 | 2.72E-03 | 2.98E-04 | 8.97E-01 |
| | Used as raw materials | MJ, net calorific value | 6.20E-03 | 2.14E-14 | 6.56E-15 | 6.20E-03 |
| | TOTAL | MJ, net calorific value | 9.00E-01 | 2.72E-03 | 2.98E-04 | 9.03E-01 |
| Primary energy resources - Non-renewable | Use as energy carrier | MJ, net calorific value | 7.79E-01 | 2.40E-01 | 1.13E-01 | 1.13E+00 |
| | Used as raw materials | MJ, net calorific value | 3.70E-05 | 4.33E-07 | 2.11E-14 | 3.74E-05 |
| | TOTAL | MJ, net calorific value | 7.79E-01 | 2.40E-01 | 1.13E-01 | 1.13E+00 |
| Secondary material | kg | 2.62E-02 | 0 | 0 | 2.62E-02 | |
| Renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Non-renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Net use of fresh water | m ³ | 9.00E-04 | 7.42E-06 | 4.41E-06 | 9.12E-04 | |



Environmental Performance: Curby Mailer^{HD} #2



Company



Product



Content Declaration



Environmental Performance



Additional Information



Waste Production

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|------------------------------|------|----------|----------|------------|----------|
| Hazardous waste disposed | kg | 7.90E-08 | 2.28E-12 | 1.06E-09 | 8.01E-08 |
| Non-hazardous waste disposed | kg | 1.20E-03 | 7.90E-06 | 5.95E-03 | 7.16E-03 |
| Radioactive waste disposed | kg | 1.71E-05 | 2.83E-06 | 6.11E-08 | 2.00E-05 |

Output Flows

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|-------------------------------|------|----------|----------|------------|----------|
| Components for reuse | kg | 0 | 0 | 0 | 0 |
| Material for recycling | kg | 2.03E-04 | 2.21E-03 | 4.05E-02 | 4.29E-02 |
| Materials for energy recovery | kg | 0 | 0 | 0 | 0 |
| Exported energy, electricity | MJ | 0 | 0 | 0 | 0 |
| Exported energy, thermal | MJ | 0 | 0 | 0 | 0 |







Content Declaration: Curby Mailer^{HD} #5



- Company 
- Product 
- Content Declaration** 
- Environmental Performance 
- Additional Information 

Product

Materials / chemical substances

| | |
|---|--|
|  <p>100% Recycled 50# Kraft Paper</p> <p>63%</p> <p>kg 4.12E-02 per mailer</p> |  <p>100% Virgin 50# Kraft Paper</p> <p>26%</p> <p>kg 1.69E-02 per mailer</p> |
|  <p>Acrylic Double-Sided Tape</p> <p>1%</p> <p>kg 4.70E-04 per mailer</p> |  <p>Hot Melt Adhesive</p> <p>10%</p> <p>kg 7.00E-03 per mailer</p> |

Packaging

Distribution/Consumer packaging:

Corrugated cardboard box weighing 1.24E-02 kg per mailer.

Recycled material

Provenience of recycled materials (pre-consumer or post-consumer) in the product:

100% Recycled 50# Kraft Paper

Environmental / hazardous properties

N/A



Environmental Performance: Curby Mailer^{HD} #5



Company



Product



Content Declaration



Environmental Performance



Additional Information



Potential Environmental Impact

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|--------------------------------------|------------------------|----------|------------|----------|----------|
| Global warming potential (GWP) | Fossil | kg CO ₂ eq. | 7.77E-02 | 2.80E-02 | 1.85E-02 | 1.24E-01 |
| | Biogenic | kg CO ₂ eq. | 7.96E-02 | 1.05E-04 | 5.89E-03 | 8.56E-02 |
| | Land use and land transformation | kg CO ₂ eq. | 6.48E-05 | 5.43E-07 | 7.14E-08 | 6.54E-05 |
| | TOTAL | kg CO ₂ eq. | 1.57E-01 | 2.81E-02 | 2.44E-02 | 2.10E-01 |
| Acidification potential (AP) | kg SO ₂ eq. | 2.27E-04 | 1.37E-04 | 8.76E-05 | 4.52E-04 | |
| Eutrophication potential (EP) | kg PO ₄ ³⁻ eq. | 6.91E-05 | 2.47E-05 | 2.10E-05 | 1.15E-04 | |
| Photochemical oxidant formation potential (POFP) | kg NMVOC eq. | 2.93E-06 | 1.65E-05 | 1.36E-05 | 3.30E-05 | |
| Abiotic depletion potential - Elements | kg Sb eq. | 1.64E-07 | 3.12E-10 | 2.24E-10 | 1.65E-07 | |
| Abiotic depletion potential - Fossil resources | MJ, net calorific value | 1.24E+00 | 3.52E-01 | 1.75E-01 | 1.77E+00 | |
| Water scarcity potential | m ³ eq. | 4.68E-04 | 3.64E-06 | 2.43E-06 | 4.74E-04 | |

Use of Resources

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|-------------------------|-------------------------|----------|------------|----------|----------|
| Primary energy resources - Renewable | Use as energy carrier | MJ, net calorific value | 1.40E+00 | 2.72E-03 | 4.83E-04 | 1.40E+00 |
| | Used as raw materials | MJ, net calorific value | 9.79E-03 | 2.14E-14 | 1.06E-14 | 9.79E-03 |
| | TOTAL | MJ, net calorific value | 1.41E+00 | 2.72E-03 | 4.83E-04 | 1.41E+00 |
| Primary energy resources - Non-renewable | Use as energy carrier | MJ, net calorific value | 1.40E+00 | 3.62E-01 | 1.77E-01 | 1.94E+00 |
| | Used as raw materials | MJ, net calorific value | 5.35E-05 | 4.33E-07 | 3.42E-14 | 5.39E-05 |
| | TOTAL | MJ, net calorific value | 1.40E+00 | 3.62E-01 | 1.77E-01 | 1.94E+00 |
| Secondary material | kg | 4.12E-02 | 0 | 0 | 4.12E-02 | |
| Renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Non-renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Net use of fresh water | m ³ | 1.45E-03 | 7.42E-06 | 7.13E-06 | 1.46E-03 | |



Environmental Performance: Curby Mailer^{HD} #5



Company



Product



Content Declaration



Environmental Performance



Additional Information



Waste Production

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|------------------------------|------|----------|----------|------------|----------|
| Hazardous waste disposed | kg | 1.58E-07 | 2.28E-12 | 1.71E-09 | 1.60E-07 |
| Non-hazardous waste disposed | kg | 1.96E-03 | 7.90E-06 | 9.63E-03 | 1.16E-02 |
| Radioactive waste disposed | kg | 2.91E-05 | 2.83E-06 | 9.88E-08 | 3.20E-05 |

Output Flows

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|-------------------------------|------|----------|----------|------------|----------|
| Components for reuse | kg | 0 | 0 | 0 | 0 |
| Material for recycling | kg | 3.90E-04 | 3.49E-03 | 6.55E-02 | 6.94E-02 |
| Materials for energy recovery | kg | 0 | 0 | 0 | 0 |
| Exported energy, electricity | MJ | 0 | 0 | 0 | 0 |
| Exported energy, thermal | MJ | 0 | 0 | 0 | 0 |







Content Declaration: Curby Mailer^{HD} #6



- Company 
- Product 
- Content Declaration** 
- Environmental Performance 
- Additional Information 

Product

Materials / chemical substances

| | |
|---|--|
|  <p>100% Recycled 50# Kraft Paper</p> <p>63%</p> <p>kg 5.74E-02 per mailer</p> |  <p>100% Virgin 50# Kraft Paper</p> <p>26%</p> <p>kg 2.35E-02 per mailer</p> |
|  <p>Acrylic Double-Sided Tape</p> <p>1%</p> <p>kg 5.50E-04 per mailer</p> |  <p>Hot Melt Adhesive</p> <p>10%</p> <p>kg 1.00E-02 per mailer</p> |

Packaging

Distribution/Consumer packaging:

Corrugated cardboard box weighing 1.09E-02 kg per mailer.

Recycled material

Provenience of recycled materials (pre-consumer or post-consumer) in the product:

100% Recycled 50# Kraft Paper

Environmental / hazardous properties

N/A



Environmental Performance: Curby Mailer^{HD} #6



Company



Product



Content Declaration



Environmental Performance



Additional Information



Potential Environmental Impact

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|--------------------------------------|------------------------|----------|------------|----------|----------|
| Global warming potential (GWP) | Fossil | kg CO ₂ eq. | 1.07E-01 | 3.88E-02 | 2.47E-02 | 1.71E-01 |
| | Biogenic | kg CO ₂ eq. | 1.11E-01 | 1.41E-04 | 8.22E-03 | 1.19E-01 |
| | Land use and land transformation | kg CO ₂ eq. | 8.30E-05 | 7.24E-07 | 9.96E-08 | 8.38E-05 |
| | TOTAL | kg CO ₂ eq. | 2.18E-01 | 3.89E-02 | 3.29E-02 | 2.90E-01 |
| Acidification potential (AP) | kg SO ₂ eq. | 3.11E-04 | 1.89E-04 | 1.17E-04 | 6.17E-04 | |
| Eutrophication potential (EP) | kg PO ₄ ³⁻ eq. | 9.48E-05 | 3.43E-05 | 2.83E-05 | 1.57E-04 | |
| Photochemical oxidant formation potential (POFP) | kg NMVOC eq. | 3.93E-06 | 2.28E-05 | 1.84E-05 | 4.51E-05 | |
| Abiotic depletion potential - Elements | kg Sb eq. | 2.25E-07 | 4.17E-10 | 3.11E-10 | 2.26E-07 | |
| Abiotic depletion potential - Fossil resources | MJ, net calorific value | 1.72E+00 | 4.87E-01 | 2.31E-01 | 2.44E+00 | |
| Water scarcity potential | m ³ eq. | 6.49E-04 | 4.85E-06 | 3.39E-06 | 6.57E-04 | |

Use of Resources

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|-------------------------|-------------------------|----------|------------|----------|----------|
| Primary energy resources - Renewable | Use as energy carrier | MJ, net calorific value | 1.95E+00 | 3.63E-03 | 6.74E-04 | 1.95E+00 |
| | Used as raw materials | MJ, net calorific value | 1.36E-02 | 2.85E-14 | 1.48E-14 | 1.36E-02 |
| | TOTAL | MJ, net calorific value | 1.96E+00 | 3.63E-03 | 6.74E-04 | 1.97E+00 |
| Primary energy resources - Non-renewable | Use as energy carrier | MJ, net calorific value | 1.94E+00 | 5.01E-01 | 2.33E-01 | 2.67E+00 |
| | Used as raw materials | MJ, net calorific value | 6.83E-05 | 5.77E-07 | 4.77E-14 | 6.89E-05 |
| | TOTAL | MJ, net calorific value | 1.94E+00 | 5.01E-01 | 2.33E-01 | 2.67E+00 |
| Secondary material | kg | 5.74E-02 | 0 | 0 | 5.74E-02 | |
| Renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Non-renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Net use of fresh water | m ³ | 2.01E-03 | 9.90E-06 | 9.95E-06 | 2.03E-03 | |



Environmental Performance: Curby Mailer^{HD} #6



Company



Product



Content Declaration



Environmental Performance



Additional Information



Waste Production

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|------------------------------|------|----------|----------|------------|----------|
| Hazardous waste disposed | kg | 2.23E-07 | 3.04E-12 | 2.39E-09 | 2.25E-07 |
| Non-hazardous waste disposed | kg | 2.70E-03 | 1.05E-05 | 1.34E-02 | 1.61E-02 |
| Radioactive waste disposed | kg | 3.98E-05 | 3.77E-06 | 1.38E-07 | 4.37E-05 |

Output Flows

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|-------------------------------|------|----------|----------|------------|----------|
| Components for reuse | kg | 0 | 0 | 0 | 0 |
| Material for recycling | kg | 4.57E-04 | 4.85E-03 | 8.52E-02 | 9.05E-02 |
| Materials for energy recovery | kg | 0 | 0 | 0 | 0 |
| Exported energy, electricity | MJ | 0 | 0 | 0 | 0 |
| Exported energy, thermal | MJ | 0 | 0 | 0 | 0 |



LCA Information

Curby Mailer process system diagram



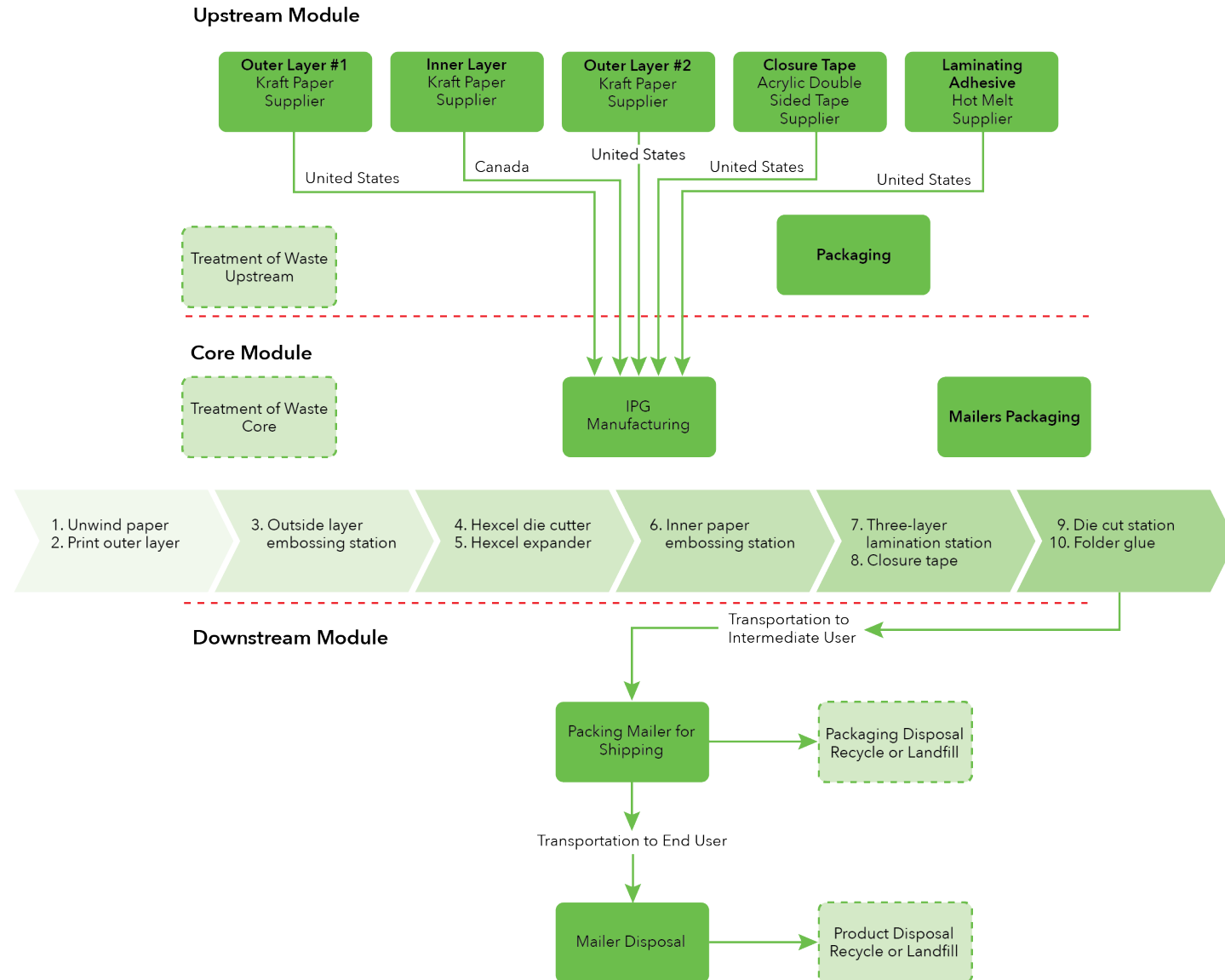
Company 

Product 

Content Declaration 

Environmental Performance 

Additional Information 











Content Declaration: Curby Mailer #2



- Company 
- Product 
- Content Declaration 
- Environmental Performance 
- Additional Information 

Product

Materials / chemical substances

| | |
|---|--|
|  100% Virgin 40# Kraft Paper 64%  2.20E-02 per mailer |  100% Virgin 43# Kraft Paper 26%  8.99E-03 per mailer |
|  Acrylic Double-Sided Tape 1%  4.70E-04 per mailer |  Hot Melt Adhesive 9%  3.14E-03 per mailer |

Packaging

Distribution/Consumer packaging:
Corrugated cardboard box weighing 9.45E-03 kg per mailer.

Environmental / hazardous properties

N/A



Environmental Performance: Curby Mailer #2



Company



Product



Content Declaration



Environmental Performance



Additional Information

Potential Environmental Impact

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|--------------------------------------|------------------------|----------|------------|----------|----------|
| Global warming potential (GWP) | Fossil | kg CO ₂ eq. | 4.97E-02 | 1.57E-02 | 1.02E-02 | 7.56E-02 |
| | Biogenic | kg CO ₂ eq. | 3.54E-02 | 9.71E-05 | 3.11E-03 | 3.86E-02 |
| | Land use and land transformation | kg CO ₂ eq. | 1.23E-05 | 5.43E-07 | 3.77E-08 | 1.29E-05 |
| | TOTAL | kg CO ₂ eq. | 8.51E-02 | 1.58E-02 | 1.33E-02 | 1.14E-01 |
| Acidification potential (AP) | kg SO ₂ eq. | 1.52E-04 | 7.41E-05 | 4.88E-05 | 2.75E-04 | |
| Eutrophication potential (EP) | kg PO ₄ ³⁻ eq. | 5.98E-05 | 1.33E-05 | 1.16E-05 | 8.47E-05 | |
| Photochemical oxidant formation potential (POFP) | kg NMVOC eq. | 1.24E-06 | 8.88E-06 | 7.50E-06 | 1.76E-05 | |
| Abiotic depletion potential - Elements | kg Sb eq. | 8.64E-08 | 3.07E-10 | 1.18E-10 | 8.68E-08 | |
| Abiotic depletion potential - Fossil resources | MJ, net calorific value | 7.47E-01 | 1.98E-01 | 9.86E-02 | 1.04E+00 | |
| Water scarcity potential | m ³ eq. | 6.86E-04 | 3.64E-06 | 1.28E-06 | 6.91E-04 | |

Use of Resources

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|-------------------------|-------------------------|----------|------------|----------|----------|
| Primary energy resources - Renewable | Use as energy carrier | MJ, net calorific value | 1.96E-02 | 2.72E-03 | 2.55E-04 | 2.26E-02 |
| | Used as raw materials | MJ, net calorific value | 1.80E-02 | 2.14E-14 | 5.60E-15 | 1.80E-02 |
| | TOTAL | MJ, net calorific value | 3.76E-02 | 2.72E-03 | 2.55E-04 | 4.06E-02 |
| Primary energy resources - Non-renewable | Use as energy carrier | MJ, net calorific value | 9.24E-02 | 2.06E-01 | 9.96E-02 | 3.98E-01 |
| | Used as raw materials | MJ, net calorific value | 9.30E-06 | 4.33E-07 | 1.80E-14 | 9.73E-06 |
| | TOTAL | MJ, net calorific value | 9.24E-02 | 2.06E-01 | 9.96E-02 | 3.98E-01 |
| Secondary material | kg | 0 | 0 | 0 | 0 | |
| Renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Non-renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Net use of fresh water | m ³ | 2.03E-03 | 7.42E-06 | 3.76E-06 | 2.04E-03 | |



Environmental Performance: Curby Mailer #2



Company



Product



Content Declaration



Environmental Performance



Additional Information



Waste Production

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|------------------------------|------|----------|----------|------------|----------|
| Hazardous waste disposed | kg | 7.25E-08 | 2.28E-12 | 9.05E-10 | 7.34E-08 |
| Non-hazardous waste disposed | kg | 2.33E-04 | 7.90E-06 | 5.08E-03 | 5.32E-03 |
| Radioactive waste disposed | kg | 8.60E-06 | 2.83E-06 | 5.22E-08 | 1.15E-05 |

Output Flows

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|-------------------------------|------|----------|----------|------------|----------|
| Components for reuse | kg | 0 | 0 | 0 | 0 |
| Material for recycling | kg | 2.02E-04 | 1.86E-03 | 3.75E-02 | 3.96E-02 |
| Materials for energy recovery | kg | 0 | 0 | 0 | 0 |
| Exported energy, electricity | MJ | 0 | 0 | 0 | 0 |
| Exported energy, thermal | MJ | 0 | 0 | 0 | 0 |







Content Declaration: Curby Mailer #5



- Company 
- Product 
- Content Declaration** 
- Environmental Performance 
- Additional Information 

Product

Materials / chemical substances

| | |
|---|--|
|  <p>100% Virgin 40# Kraft Paper</p> <p>62%</p> <p>kg 3.46E-02 per mailer</p> |  <p>100% Virgin 43# Kraft Paper</p> <p>25%</p> <p>kg 1.42E-02 per mailer</p> |
|  <p>Acrylic Double-Sided Tape</p> <p>1%</p> <p>kg 4.70E-04 per mailer</p> |  <p>Hot Melt Adhesive</p> <p>12%</p> <p>kg 7.00E-03 per mailer</p> |

Packaging

Distribution/Consumer packaging:
Corrugated cardboard box weighing 1.24E-02 kg per mailer.

Environmental / hazardous properties
N/A



Environmental Performance: Curby Mailer #5



Potential Environmental Impact

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|--------------------------------------|------------------------|----------|------------|----------|----------|
| Global warming potential (GWP) | Fossil | kg CO ₂ eq. | 8.78E-02 | 2.39E-02 | 1.61E-02 | 1.28E-01 |
| | Biogenic | kg CO ₂ eq. | 5.58E-02 | 1.02E-04 | 5.06E-06 | 5.59E-02 |
| | Land use and land transformation | kg CO ₂ eq. | 1.72E-05 | 5.43E-07 | 6.13E-08 | 1.78E-05 |
| | TOTAL | kg CO ₂ eq. | 1.44E-01 | 2.40E-02 | 1.61E-02 | 1.84E-01 |
| Acidification potential (AP) | kg SO ₂ eq. | 2.55E-04 | 1.16E-04 | 7.67E-05 | 4.48E-04 | |
| Eutrophication potential (EP) | kg PO ₄ ³⁻ eq. | 9.70E-05 | 2.09E-05 | 1.83E-05 | 1.36E-04 | |
| Photochemical oxidant formation potential (POFP) | kg NMVOC eq. | 4.09E-06 | 1.39E-05 | 1.19E-05 | 2.99E-05 | |
| Abiotic depletion potential - Elements | kg Sb eq. | 1.53E-07 | 3.11E-10 | 1.92E-10 | 1.54E-07 | |
| Abiotic depletion potential - Fossil resources | MJ, net calorific value | 1.36E+00 | 3.00E-01 | 1.54E-01 | 1.81E+00 | |
| Water scarcity potential | m ³ eq. | 1.10E-03 | 3.64E-06 | 2.09E-06 | 1.11E-03 | |

Use of Resources

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|-------------------------|-------------------------|----------|------------|----------|----------|
| Primary energy resources - Renewable | Use as energy carrier | MJ, net calorific value | 3.21E-02 | 2.72E-03 | 4.14E-04 | 3.52E-02 |
| | Used as raw materials | MJ, net calorific value | 2.83E-02 | 2.14E-14 | 9.11E-15 | 2.83E-02 |
| | TOTAL | MJ, net calorific value | 6.04E-02 | 2.72E-03 | 4.14E-04 | 6.35E-02 |
| Primary energy resources - Non-renewable | Use as energy carrier | MJ, net calorific value | 1.64E+00 | 3.10E-01 | 1.56E-01 | 2.11E+00 |
| | Used as raw materials | MJ, net calorific value | 1.22E-05 | 4.33E-07 | 2.93E-14 | 1.26E-05 |
| | TOTAL | MJ, net calorific value | 1.64E+00 | 3.10E-01 | 1.56E-01 | 2.11E+00 |
| Secondary material | kg | 0 | 0 | 0 | 0 | |
| Renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Non-renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Net use of fresh water | m ³ | 3.23E-03 | 7.42E-06 | 6.12E-06 | 3.24E-03 | |



Environmental Performance: Curby Mailer #5



Company



Product



Content Declaration



Environmental Performance



Additional Information



Waste Production

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|------------------------------|------|----------|----------|------------|----------|
| Hazardous waste disposed | kg | 1.48E-07 | 2.28E-12 | 1.47E-09 | 1.49E-07 |
| Non-hazardous waste disposed | kg | 4.56E-04 | 7.90E-06 | 8.26E-03 | 8.72E-03 |
| Radioactive waste disposed | kg | 2.71E-05 | 2.83E-06 | 8.48E-08 | 3.00E-05 |

Output Flows

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|-------------------------------|------|----------|----------|------------|----------|
| Components for reuse | kg | 0 | 0 | 0 | 0 |
| Material for recycling | kg | 3.06E-04 | 2.93E-03 | 5.85E-02 | 6.17E-02 |
| Materials for energy recovery | kg | 0 | 0 | 0 | 0 |
| Exported energy, electricity | MJ | 0 | 0 | 0 | 0 |
| Exported energy, thermal | MJ | 0 | 0 | 0 | 0 |







Content Declaration: Curby Mailer #6



- Company 
- Product 
- Content Declaration** 
- Environmental Performance 
- Additional Information 

Product

Materials / chemical substances

| | |
|---|--|
|  <p>100% Virgin 40# Kraft Paper</p> <p>61%</p> <p>kg 4.82E-02 per mailer</p> |  <p>100% Virgin 43# Kraft Paper</p> <p>25%</p> <p>kg 1.97E-02 per mailer</p> |
|  <p>Acrylic Double-Sided Tape</p> <p>1%</p> <p>kg 5.50E-04 per mailer</p> |  <p>Hot Melt Adhesive</p> <p>13%</p> <p>kg 1.00E-02 per mailer</p> |

Packaging

Distribution/Consumer packaging:
Corrugated cardboard box weighing 1.09E-02 kg per mailer.

Environmental / hazardous properties
N/A



Environmental Performance: Curby Mailer #6



Company



Product



Content Declaration



Environmental Performance



Additional Information



Potential Environmental Impact

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|--------------------------------------|------------------------|----------|------------|----------|----------|
| Global warming potential (GWP) | Fossil | kg CO ₂ eq. | 1.21E-01 | 3.30E-02 | 2.14E-02 | 1.75E-01 |
| | Biogenic | kg CO ₂ eq. | 7.76E-02 | 1.37E-04 | 7.06E-03 | 8.48E-02 |
| | Land use and land transformation | kg CO ₂ eq. | 1.66E-05 | 7.24E-07 | 8.55E-08 | 1.74E-05 |
| | TOTAL | kg CO ₂ eq. | 1.99E-01 | 3.31E-02 | 2.85E-02 | 2.60E-01 |
| Acidification potential (AP) | kg SO ₂ eq. | 3.50E-04 | 1.60E-04 | 1.01E-04 | 6.11E-04 | |
| Eutrophication potential (EP) | kg PO ₄ ³⁻ eq. | 1.34E-04 | 2.89E-05 | 2.46E-05 | 1.88E-04 | |
| Photochemical oxidant formation potential (POFP) | kg NMVOC eq. | 5.54E-06 | 1.93E-05 | 1.59E-05 | 4.07E-05 | |
| Abiotic depletion potential - Elements | kg Sb eq. | 2.09E-07 | 4.15E-10 | 2.67E-10 | 2.10E-07 | |
| Abiotic depletion potential - Fossil resources | MJ, net calorific value | 1.88E+00 | 4.14E-01 | 2.01E-01 | 2.50E+00 | |
| Water scarcity potential | m ³ eq. | 1.52E-03 | 4.85E-06 | 2.91E-06 | 1.53E-03 | |

Use of Resources

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL | |
|--|-------------------------|-------------------------|----------|------------|----------|----------|
| Primary energy resources - Renewable | Use as energy carrier | MJ, net calorific value | 3.81E-02 | 3.63E-03 | 5.78E-04 | 4.23E-02 |
| | Used as raw materials | MJ, net calorific value | 3.94E-02 | 2.85E-14 | 1.27E-14 | 3.94E-02 |
| | TOTAL | MJ, net calorific value | 7.75E-02 | 3.63E-03 | 5.78E-04 | 8.17E-02 |
| Primary energy resources - Non-renewable | Use as energy carrier | MJ, net calorific value | 2.27E+00 | 4.28E-01 | 2.03E-01 | 2.90E+00 |
| | Used as raw materials | MJ, net calorific value | 1.07E-05 | 5.77E-07 | 4.09E-14 | 1.13E-05 |
| | TOTAL | MJ, net calorific value | 2.27E+00 | 4.28E-01 | 1.59E-01 | 2.86E+00 |
| Secondary material | kg | 0 | 0 | 0 | 0 | |
| Renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Non-renewable secondary fuels | MJ, net calorific value | 0 | 0 | 0 | 0 | |
| Net use of fresh water | m ³ | 4.48E-03 | 9.90E-06 | 8.54E-06 | 4.50E-03 | |



Environmental Performance: Curby Mailer #6



Company



Product



Content Declaration



Environmental Performance



Additional Information



Waste Production

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|------------------------------|------|----------|----------|------------|----------|
| Hazardous waste disposed | kg | 2.09E-07 | 3.04E-12 | 2.05E-09 | 2.11E-07 |
| Non-hazardous waste disposed | kg | 6.11E-04 | 1.05E-05 | 1.15E-02 | 1.21E-02 |
| Radioactive waste disposed | kg | 2.16E-05 | 3.77E-06 | 1.18E-07 | 2.55E-05 |

Output Flows

| PARAMETER | UNIT | Upstream | Core | Downstream | TOTAL |
|-------------------------------|------|----------|----------|------------|----------|
| Components for reuse | kg | 0 | 0 | 0 | 0 |
| Material for recycling | kg | 3.94E-04 | 4.08E-03 | 7.44E-02 | 7.89E-02 |
| Materials for energy recovery | kg | 0 | 0 | 0 | 0 |
| Exported energy, electricity | MJ | 0 | 0 | 0 | 0 |
| Exported energy, thermal | MJ | 0 | 0 | 0 | 0 |



References



Company



- EPA (2021) Containers and packaging: product-specific data – paper and paperboard containers and packaging. United States Environmental Protection Agency. Retrieved from <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/containers-and-packaging-product-specific-data#PaperandPaperboardC&P>

Product



- EPD International (2017) General Programme Instructions for the International EPD® System. Version 3.0, dated 2017-12-11. www.environdec.com

Content Declaration



- ISO (2006b), ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework.
- ISO (2006c), ISO 14044: 2006, Environmental management – Life cycle assessment – Requirements and guidelines.

Environmental Performance



- ISO (2006a), ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

Additional Information



- PCR (2019:13). Packaging. Version 1.1.
- Sphera (2021). GaBi LCA Software.

Differences Versus Previous Versions

2023-05-16 Version 1

2023-07-05 Version 1.1 Editorial changes: Changed contact email, corporate logo.



Thank You!

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APPEAL.**

