



EcoLeaf

Type III Environmental Declaration (EPD)

Registration number : JR-BA-21001E

Ecoleaf Environmental Labeling Program

Sustainable Management Promotion Organization

2-1, Kaji-cho 2 chome, Chiyoda-ku, Tokyo Japan

<https://ecoleaf-label.jp/>

Kotec Corporation

Recycled Polycarbonate resin
(R grade Polycarbonate recycled 100%)



Functional unit

Per 1 kg

System boundary

final products intermediate products

Main specifications of the product

Grade: R-10 ~ 75

Polycarbonate pellets recycled from

100% of post-industrial scraps

Company Information

Kotec corporation

3-21-15, Chayamadai, Minami, Sakai, 590-0115 Japan

Tel: +81-72-294-8711

Fax: +81-72-294-8533

Registration#

JR-BA-21001E

PCR number

PA-165000-BA-02

PCR name

Recycled plastic raw materials
(intermediate products)

Publication date

14th July, 2021

Verification date

8th July, 2021

Verification method

Product-by-product

Verification#

JV-BA-21001

Expiration date

7th July, 2026

PCR review was conducted by:

Approval date 1st October, 2019

PCR review panel chair Masayuki Kanzaki, Chairperson
Japan Environmental Management
Association for Industry

Third party verifier*

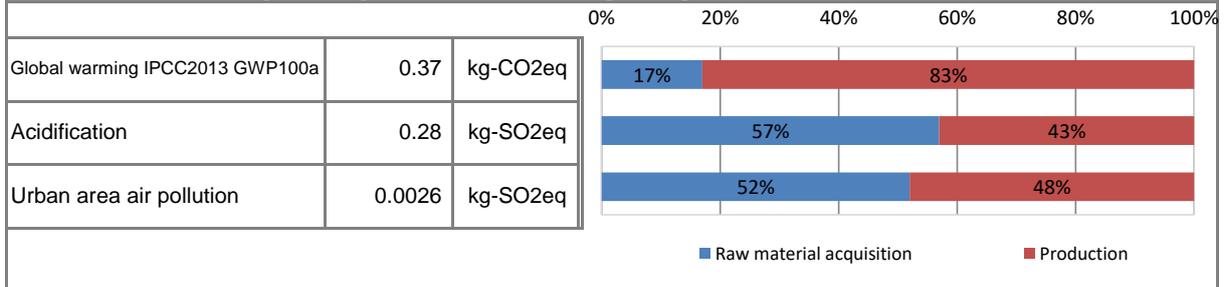
External verifier Yuki Sakamoto

Independent verification of data & declaration in
accordance with ISO14025

internal external

*Auditor's name is stated if system certification has been performed.

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**1. Results of life cycle impact assessment (LCIA)**

Parameter	stage	Unit	Total	Raw material acquisition	Production	Distribution	Use & maintenance	End-of-Life
Global warming IPCC2013 GWP100a		kg-CO ₂ eq	3.7E-01	6.4E-02	3.0E-01			
Ozone layer destruction		kg-CFC-11eq	2.1E-09	1.8E-09	2.9E-10			
Acidification		kg-SO ₂ eq	2.8E-04	1.6E-04	1.2E-04			
Urban area air pollution		kg-SO ₂ eq	1.2E-04	6.7E-05	5.5E-05			
Photochemical ozone		kg-C ₂ H ₄ eq	6.8E-06	4.1E-07	6.4E-06			
Toxic chemicals(cancer)		kg-C ₆ H ₆ eq	1.6E-06	2.7E-08	1.5E-06			
Toxic chemicals(chronic disease)		kg-C ₆ H ₆ eq	2.3E-07	4.0E-09	2.2E-07			
Aquatic toxicity		kg-C ₆ H ₆ eq	3.5E-04	6.0E-06	3.4E-04			
Biological toxicity		kg-C ₆ H ₆ eq	8.5E-03	1.5E-04	8.3E-03			
Eutrophication		kg-PO ₄ ³⁻ eq	3.9E-06	9.2E-09	3.9E-06			
Land use(Occupation)		m ² /year	6.9E-03	6.4E-03	5.3E-04			
Land use(Transformation)		m ²	1.4E-04	1.2E-04	1.3E-05			
Resources consumption		kg-Sbeq	2.6E-06	1.4E-06	1.3E-06			

2. Life cycle inventory analysis (LCI)

項目		単位
Non-renewable material resources	8.7E-04	kg
Non-renewable energy resources	1.4E-01	kg
Non-renewable energy resources	5.8E+00	MJ
Renewable material resources	5.2E-03	kg
Renewable primary energy	1.6E-01	MJ
Consumption of freshwater	1.8E-04	m ³

3. Material composition

Material		Unit
Recycled polycarbonate	99.82	%
Colorant	0.0030	%
Additive	0.0080	%
Paper bag	0.13	%
Stretch film	0.042	%

4. Waste to disposal

Parameter		Unit
Hazardous waste	-	kg
Non-hazardous waste.	8.9E-04	kg
Treated MSW for landfill	0.0E+00	kg
Treated industrial waste for landfill	8.9E-04	kg

*Data derived from LCA and not assigned to the impact categories of LCIA

5. Additional explanation

As standard values (basic unit) are referenced in the assessment, the result might not precisely reflect the properties of the product mentioned above. For this reason, it is to be noted that the result is merely approximate.



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6-1. Supplementary environmental information

Manufactured by Kotec factory that is certified to ISO14001

6-2. Regulated hazardous substances

Substance	CAS No.	Reference to standards or regulations
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7. Assumptions of secondary data used

IDEA v2.1.3 referenced.

8. Remarks

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- For data quantification, please refer to PCR and Rules on quantification and declaration.
- Comparative assertion is permitted only when Rules on quantification and declaration are satisfied.
(Reference URL : <https://ecoleaf-label.jp/regulation/>)

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