

Packaging EPR fee in EU: What are the differences?



Overview and comparison of PRO fees between January 2023 and June 2023.

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1 Introduction

Packaging has become an indispensable part of our everyday lives. Yet they have a considerable impact on the environment. Packaging is one of the main users of virgin materials (40 % of plastics and 50 % of paper used in the EU is destined for packaging) and accounts for 36 % of municipal solid waste. The increased use of packaging combined with low re-use and recycling rates hinder the development of a low-carbon circular economy.¹

In 1994, the Packaging and Packaging Waste Directive (PPWD) was introduced, which first presented the concept of "shared responsibility", which in the following years became known as "Extended Producer Responsibility" (EPR). In 2018, the EPR principle became the main measure for Member States to ensure that producers of packaging bear the financial and/or operational responsibility for packaging, from design to final disposal, through the amending Directive 2018/851. Finally, the revision of Directive 2018/852/CE on packaging and packaging waste introduced a new obligation for EU Member States, which are now required to set up a specific EPR system for packaging by 2025, usually through organizations (funded by the producers and/or users of packaging themselves, so-called Producer Responsibility Organizations (PROs)) that take responsibility for it on behalf of their members. The recently presented proposal for an updated PPWD specifically highlights the options to set incentives for more circular packaging solutions by eco-modulated licensing fees.

European countries have different EPR models for packaging as they are developed depending on specific characteristics of the countries (e. g. socio-cultural, macro-economic and organizational variables of the waste system). In each model, an environmental contribution, i. e. a fee, is set, which is used to cover all costs of the necessary activities (collection, sorting, recycling). The fees are also based on environmental factors and are different for the materials considered.

In this report, fees from 18 countries are compared. Six packaging solutions common to all PROs were analyzed to compare countries and identify trends.

¹ <https://environment.ec.europa.eu/system/files/2022-11/Proposal%20for%20a%20Regulation%20on%20packaging%20and%20packaging%20waste.pdf>

2 Methodology

First, the Main PRO representing the functionality of the respective national EPR system for packaging was identified for each country. In addition, six packaging solutions were pre-defined for which the corresponding fee indicator was calculated in each country. The packaging solutions are shown in Figure 1:



Figure 1: Overview of the six packaging solutions

For the calculation, the fee indicators of the individual materials were identified on the respective PRO website. The fee indicators were given by weight, so that the respective indicator was multiplied by the respective weight of the product for the calculation. In some countries, other fees were also added. The detailed calculation for the six packaging solutions in the 18 countries for the months January 2023 and June 2023 can be found in the Annex. Finally, the aggregate fee indicator was calculated for each Main PRO by summing up all six fee values. All fee values are expressed in euro cents.

For the following countries, the calculation approach was slightly different:

- **Germany:** a license calculator from the PRO website was used, as it allows to calculate the fee value according to each material's quantity put on the market. However, it did not contain information for the sixth packaging solution (wooden box).
- **UK:** an average estimated cost value per material was used, as the national system is dynamic and prices vary continuously in relation to the market's performance of raw materials and the recycling cost (the fee for material is replaced by Certificates attesting the recycling quantities -Packaging Recycling Notes, PRN - at the expense of each obliged entity). Since values for June 2023 will soonest be available in August 2023, the most recent PRN values were used (in this case: April 2023).
- **France:** The main PRO of France uses an articulated mechanism to calculate fees per material with detailed formulas. In this case, assumptions have been made about the inclusion of Bonus and Malus.

For some countries (in particular those East-European), the fee's value declared in local currency has been converted into euro currency of the period considered at the exchange. For countries where a Deposit Recycling System for Recycling (DRS) is active, for the Main PRO the value of the fee was calculated with reference to packaging of equivalent in weight and materials. Moreover, the PROs of four countries do not use specific indicators for wood (Belgium, Germany, Luxembourg and Sweden). Therefore, the aggregate fee indicators of those countries must also be viewed with caution.



3 Fee indicators for 2023

The following table shows all calculated fee indicators for June 2023. The indicators are all stated in cents and are presented in ascending order. They were determined according to the calculations in chapter 2. The 2023 values for Cyprus have not yet been published (as of June 12th, 2023).

Table 1: Overview of the fee indicators for 2023

Countries	Main PRO	PET bottle	Aluminum Can	Cardboard Box	Glass Bottle	Steel Can	Wooden Box	Aggregate Fee Indicator (cent)
Italy	CONAI	0,15	0,01	0,11	1,10	0,02	0,64	2,04
Luxembourg	VALORLUX	0,52	0,05	0,99	0,77	0,05	0,00	2,37
Slovenia	SLOPAK	0,92	0,35	0,18	0,49	1,23	2,80	5,97
Belgium	FOST PLUS	1,40	0,04	1,73	2,79	0,06	0,00	6,02
Spain	ECOEMBES	1,77	0,08	1,95	1,90	0,59	0,56	6,84
Finland	RINKI	1,22	0,15	1,91	4,71	0,42	0,21	8,62
Netherlands	AFVALFONDS (SAV)	3,32	0,26	0,27	2,89	1,10	0,80	8,63
Portugal	SPV	0,68	0,06	2,37	0,98	0,70	4,51	9,30
Sweden	FTI	1,99	0,83	4,28	3,46	1,59	0,00	12,14
UK	VALPAK	1,53	0,54	0,64	7,26	0,21	2,18	12,37
Romania	ECO-ROM	0,62	0,23	1,76	4,74	0,35	4,82	12,53
Bulgaria	ECOPACK	0,45	0,14	2,31	5,76	0,24	4,41	13,30
Austria	ARA	3,28	0,54	2,22	4,58	1,32	1,60	13,54
Germany	GRUNE PUNKT	3,36	1,31	3,80	2,35	3,34	0,00	14,16
Estonia	ETO	1,82	0,43	2,49	5,20	1,19	3,52	14,65
France	CITEO	1,48	0,28	3,88	0,73	0,30	30,15	36,83
Czech Republic	EKO-COM	2,40	0,40	4,86	3,72	0,38	30,51	42,26
Cyprus	GREEN DOT CYPRUS	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*For countries where a Deposit Recycling System is active, the value of the fee was calculated with reference to packaging of equivalent in weight and materials.

In the table above the lowest and the highest fee values per packaging are highlighted in green and yellow respectively. Therefore, the results indicate that the fee values are:

- Lower in Italy (plastic, aluminum, cardboard and steel), Slovenia (glass) and Finland (wood).
- Higher in Germany (plastic, aluminium and steel), Czech Republic (cardboard and wood) and UK (glass).

Overall, the aggregate fee indicator is lowest in Italy (2,04 cents), Luxembourg (2,37 cents) and Slovenia (5,97 cents). On the other hand, the highest aggregate fee indicators were found in Czech Republic (42,27 cents), France (36,83 cents) and Estonia (12,65 cents), mainly due to high fee rates for wooden packages.

4 Comparison of the January and June 2023 values

In order to identify the economic trends related to the fee, the study assessed a comparison between the two aggregate indicators from January and June 2023.² The list below is sorted according to the Trend June 2023, from highest reduction to highest increase.

Table 2: Comparison between the fees of January and June 2023

Country	Main PRO	Aggregate Fee Indicator (ct.) Jan. 23	Trend June 2023
UK*	VALPAK	14,12	-12%
Czech Republic	EKO-COM	46,22	-9%
Sweden	FTI	12,67	-4%
Romania**	ECO-ROM	12,68	-1%
Luxembourg	VALORLUX	2,37	0%
Belgium	FOST PLUS	6,02	0%
Germany*	GRUNE PUNKT	14,16	0%
Netherlands	AFVALFONDS (SAV)	8,63	0%
Slovenia	SLOPAK	5,97	0%
France*	CITEO	36,83	0%
Italy*	CONAI	2,04	0%
Portugal	SPV	9,30	0%
Austria	ARA	13,54	0%
Spain*	ECOEMBES	6,84	0%
Finland	RINKI	8,56	1%
Estonia	ETO	13,78	6%
Bulgaria	ECOPACK	10,77	23%
Cyprus	GREEN DOT CYPRUS	n/a	n/a

*Countries with a population of more than 20 million.

**The delta is only due to slightly adjusted currency exchange rates. Fee indicators remained unchanged.

The delta between the values of the two months shows that in 4 out of 18 Countries (22 %) was recorded a decrease in the fees from January to June 2023 with the highest reduction in UK due to a decrease in PRN values between the beginning of 2023 and April 2023; on the other hand, in 3 countries (17 %) an increase was recorded: the Country who registered the most significant increase is Bulgaria (+23 %), which is due to the increase of all material fee indicators (plastic +19 %, aluminium +97 %, cardboard +28 %, glass +27 %, steel + 33% and wood + 10%). In the majority of the countries, the fees didn't change within the first half of 2023.

² The Trend June 2023 represents the delta of the absolute values; inflation rates were not taken into account.

5 Conclusion

As of mid June 2023, the aggregate fee indicator was lowest in Italy and highest in Czech Republic. Overall, a decline in the aggregate fee indicator was only observed in 4 countries between January and June 2023, while an increase was observed in 3 countries. However, in most countries, the fee indicators didn't change within the first half of 2023.

Annex

I. Austria

Main PRO: ARA

Source: <https://www.ara.at/uploads/Dokumente/Tarifbl%C3%A4tter/ARA-Tarifblatt-2023.pdf>

Note: The fees remained unchanged.

i. Transparent PET Bottle

June 2023:

Fee indicator:	1.04.1 "Kunststoffe Haushalt": 0,780 €/kg
Calculation	$42 \text{ g} * 0,078 \text{ cent/g} = 3,276 \text{ cent}$



**TRANSPARENT
PET BOTTLE**

1,5 liters
40 g
plastic cap 2 g

ii. Aluminum Can

June 2023:

Fee indicator:	1.03.2 „Aluminium Haushalt“: 0,34 €/kg
Calculation	$16 \text{ g} * 0,034 \text{ cent/g} = 0,544 \text{ cent}$



**ALUMINIUM
CAN**

33 cl
16 g

iii. Cardboard Box

June 2023:

Fee indicator:	1.01.0 „Papier Haushalt“: 0,100 €/kg
Calculation	$222 \text{ g} * 0,01 \text{ cent/g} = 2,22 \text{ cent}$



**CARDBOARD
BOX**

13,3 x 25,5 x 9 cm
222 g

iv. Transparent Glass Water Bottle

June 2023:

Fee indicator:	1.02.0 „Glas Haushalt“: 0,095 €/kg 1.03.2 „Aluminium Haushalt“: 0,34 €/kg
Calculation	$480 \text{ g} * 0,0095 \text{ cent/g} = 4,56 \text{ cent}$ $0,6 \text{ g} * 0,034 \text{ cent/g} = 0,0204 \text{ cent}$ Total: 4,58 cent



**TRANSPARENT
GLASS WATER
BOTTLE**

75 cl
480 gr
aluminium cap 0,60 g

v. Canned Tomatoes

June 2023:

Fee indicator:	1.03.1 "Eisenmetall Haushalt": 0,3 €/kg
Calculation	44 g * 0,03 cent/g = 1,32 cent



CANNED TOMATOES (STEEL)

44 g

vi. Wooden Box

June 2023:

Fee indicator:	1.04.5 "Holz Haushalt": 0,02 €/kg
Calculation	800 g * 0,002 cent/g = 1,6 cent



WOODEN BOX

30 x 50 cm
800 g

II. Belgium

Main PRO: FOST PLUS

Source: <https://www.fostplus.be/en/members/green-dot-rates>

Note: The fees remained unchanged. Furthermore, there was no fee indicator for wooden packages.

i. Transparent PET Bottle

June 2023:

Fee indicator:	PET bottles and flasks - transparent colourless: 0,3125 €/kg PET rigid packaging other than bottles and flasks transparent: 0,7431 €/kg
Calculation	40 g * 0,03125 ct/g = 1,25 cent 2 g * 0,07431 ct/g = 0,14862 cent Total: 1,399 cent



TRANSPARENT PET BOTTLE

1,5 liters
40 g
plastic cap 2 g

ii. Aluminum Can

June 2023:

Fee indicator:	Aluminum: 0,0234 €/kg
Calculation	16 g * 0,00234 ct/g = 0,03744 cent



ALUMINIUM CAN

33 cl
16 g

iii. Cardboard Box

June 2023:

Fee indicator:	Paper-Cardboard: 0,0781 €/kg
Calculation	222 g * 0,00781 ct/g = 1,73382 cent



iv. Transparent Glass Water Bottle

June 2023:

Fee indicator:	Glass: 0,0581 €/kg Aluminum: 0,0234 €/kg
Calculation	480 g * 0,00581 ct/g = 2,7888 cent 0,6 g * 0,00234 ct/g = 0,001404 cent Total: 2,79 cent



v. Canned Tomatoes

June 2023:

Fee indicator:	Steel: 0,014 €/kg
Calculation	44 g * 0,0014 cent/g = 0,0616 cent



vi. Wooden Box

June 2023:

Fee indicator:	<i>Not available</i>
Calculation	<i>Not available</i>



III. Bulgaria

Main PRO: Ecopack

Source: <https://www.ecopack.bg/en/members/pricing-and-business-policy>

Currency exchange:

- January: 1 BGN = 0,5114 €
- June: 1 BGN = 0,51 €

i. Transparent PET Bottle

January 2023:

Fee indicator:	Plastic, Base fee rate for recover: 0,175 BGN/kg → 0,09 €/kg
Calculation	42 g * 0,009 cent/g = 0,378 cent



June 2023:

Fee indicator:	Plastic, Base fee rate for recover: 0,209 BGN/kg → 0,10659 €/kg
Calculation	42 g * 0,010659 cent/g = 0,448 cent

ii. Aluminum Can

January 2023:

Fee indicator:	Aluminum, base fee rate: 0,089 BGN/kg → 0,0455 €/kg
Calculation	16 g * 0,00455 ct/g = 0,0728 cent



June 2023:

Fee indicator:	Aluminum, base fee rate: 0,175 BGN/kg → 0,08925 €/kg
Calculation	16 g * 0,008925 ct/g = 0,143 cent

iii. Cardboard Box

January 2023:

Fee indicator:	Paper and cardboard, base rate: 0,16 BGN/kg → 0,082 €/kg
Calculation	222 g * 0,0082 ct/g = 1,8204 cent



June 2023:

Fee indicator:	Paper and cardboard, base rate: 0,204 BGN/kg → 0,10404 €/kg
Calculation	222 g * 0,010404 ct/g = 2,31 cent

iv. Transparent Glass Water Bottle

January 2023:

Fee indicator:	Glass, base fee rate: 0,185 BGN/kg Aluminum: 0,089 BGN/kg → Glass: 0,09 €/kg → Aluminum: 0,0455 €/kg
Calculation	480 g * 0,009 ct/g = 4,32 cent 0,6 g * 0,00455 ct/g = 0,00273 cent Total: 4,3227 cent



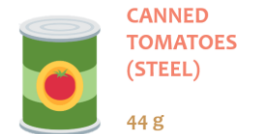
June 2023:

Fee indicator:	Glass, base fee rate: 0,235 BGN/kg Aluminum: 0,175 BGN/kg → Glass: 0,11985 €/kg → Aluminum: 0,08925 €/kg
Calculation	480 g * 0,011985 ct/g = 5,753 cent 0,6 g * 0,008925 ct/g = 0,005 cent Total: 5,758 cent

v. Canned Tomatoes

January 2023:

Fee indicator:	Steel Base Amount: 0,079 BGN/kg → 0,0404 €/kg
Calculation	44 g * 0,00404 cent/g = 0,17776 cent



June 2023:

Fee indicator:	Steel Base Amount: 0,105 BGN/kg → 0,05355 €/kg
Calculation	44 g * 0,005355 cent/g = 0,236 cent

vi. Wooden Box

January 2023:

Fee indicator:	Wood Base Amount: 0,098 BGN/kg
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	→ 0,04998 €/kg
Calculation	800 g * 0,004998 cent/g = 3,9984 cent

June 2023:

Fee indicator:	Wood Base Amount: 0,108 BGN/kg → 0,05508 €/kg
Calculation	800 g * 0,005508 cent/g = 4,406 cent

IV. Cyprus

Main PRO: Green Dot Cyprus

Source: <https://greendot.com.cy/en/packaging-definition-and-fees/packaging-fees/>

Note: Values for 2023 not available yet.

i. Transparent PET Bottle

June 2023:

Fee indicator:	<i>Not available</i>
Calculation	<i>Not available</i>



ii. Aluminum Can

June 2023:

Fee indicator:	<i>Not available</i>
alculation	<i>Not available</i>



iii. Cardboard Box

June 2023:

Fee indicator:	<i>Not available</i>
Calculation	<i>Not available</i>



iv. Transparent Glass Water Bottle

June 2023:

Fee indicator:	<i>Not available</i>
Calculation	<i>Not available</i>



v. Canned Tomatoes

June 2023:

Fee indicator:	<i>Not available</i>
Calculation	<i>Not available</i>



CANNED TOMATOES (STEEL)
44 g

vi. Wooden Box

June 2023:

Fee indicator:	<i>Not available</i>
Calculation	<i>Not available</i>



WOODEN BOX
30 x 50 cm
800 g

V. Czech Republic

Main PRO: Ekokom

Source: https://www.ekokom.cz/wp-content/uploads/2022/11/EKOKOM_fees_valid_from_1_1_2023.pdf and https://www.ekokom.cz/wp-content/uploads/2023/05/EKOKOM_fees_valid_from_1_7_2023.pdf

Currency exchange:

- January: 1 CZK = 0,0419 €
- June: 1 CZK = 0,042 €

Note: All fees are from the category “Sales one-way packaging”

i. Transparent PET Bottle

January 2023:

Fee indicator:	PET clear transparent, beverage, soft flexible: 14.651 CZK/t → 613,85 €/t PET colored opaque, beverage, virgin up to 3L: 13.533 CZK/t → 567,01 €/t
Calculation	40 g * 0,061385 ct/g = 2,4554 cent 2 g * 0,056701 ct/g = 0,1134 cent Total: 2,5688 cent



TRANSPARENT PET BOTTLE
1,5 liters
40 g
plastic cap 2 g

June 2023:

Fee indicator:	PET clear transparent, beverage, soft flexible: 13.617 CZK/t → 571,914 €/t
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	PET colored opaque, beverage, virgin up to 3L: 13.224 CZK/t → 555,408 €/t
Calculation	40 g * 0,0571914 ct/g = 2,288 cent 2 g * 0,0555408 ct/g = 0,111 cent Total: 2,399 cent

ii. Aluminum Can

January 2023:

Fee indicator:	Aluminum, beverage, soft: 6.839 CZK/t → 286,54 €/t
alculation	16 g * 0,028654 ct/g = 0,458464 cent



June 2023:

Fee indicator:	Aluminum, beverage, soft: 5.930 CZK/t → 249,06 €/t
alculation	16 g * 0,024906 ct/g = 0,398 cent

iii. Cardboard Box

January 2023:

Fee indicator:	Paperboard, non-beverage: 6.202 CZK/t → 259,85 €/t
Calculation	222 g * 0,025985 ct/ = 5,76867 cent



June 2023:

Fee indicator:	Paperboard, non-beverage: 5.208 CZK/t → 218,736 €/t
Calculation	222 g * 0,0218736 ct/ = 4,856 cent

iv. Transparent Glass Water Bottle

January 2023:

Fee indicator:	Glass, clear transparent, beverage: 1.843 CZK/t → 77,22 €/t
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	Aluminum, beverage, rigid, virgin, up to 3L: 3.575 CZK/t → 157,41 €/t
Calculation	480 g * 0,007722 ct/g = 3,70656 cent 0,6 g * 0,015741 ct/g = 0,0094446 cent Total: 3,716 cent

June 2023:

Fee indicator:	Glass, clear transparent, beverage: 1.843 CZK/t → 77,40 €/t Aluminum, beverage, rigid, virgin, up to 3L: 3.099 CZK/t → 130,16 €/t
Calculation	480 g * 0,0077406 ct/g = 3,715 cent 0,6 g * 0,0130158 ct/g = 0,008 cent Total: 3,723 cent

v. Canned Tomatoes

January 2023:

Fee indicator:	Metals Fe, non-beverage, rigid, up to 3L: 2.376 CZK/t → 99,5544 €/t
Calculation	44 g * 0,009955 ct/g = 0,43802 cent



CANNED TOMATOES (STEEL)

44 g

June 2023:

Fee indicator:	Metals Fe, non-beverage, rigid, up to 3L: 2.060 CZK/t → 86,52 €/t
Calculation	44 g * 0,008652 ct/g = 0,381 cent

vi. Wooden Box

January 2023:

Fee indicator:	Wood and chipboard, non-beverage: 9.903 CZK/t
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WOODEN BOX

30 x 50 cm
800 g

	→ 415,926 €/t
Calculation	$800 \text{ g} * 0,0415926 \text{ ct/g} = 33,27408 \text{ cent}$

June 2023:

Fee indicator:	Wood and chipboard, non-beverage: 9.079 CZK/t → 381,818 €/t
Calculation	$800 \text{ g} * 0,0381318 \text{ ct/g} = 30,505 \text{ cent}$

VI. Estonia

Main PRO: ETO

Source: <https://www.eto.ee/en/producerimporter/service-fees/>

Note: All values represent the “calculated rate of service fee EUR/t”.

i. Transparent PET Bottle

January 2023:

Fee indicator:	Plastic (monomaterial): 409 €/t
Calculation	$42 \text{ g} * 0,0409 \text{ ct/g} = 1,7178 \text{ cent}$

June 2023:

Fee indicator:	Plastic (monomaterial): 433 €/t
Calculation	$42 \text{ g} * 0,0433 \text{ ct/g} = 1,819 \text{ cent}$



ii. Aluminum Can

January 2023:

Fee indicator:	Aluminum: 256 €/t
Calculation	$16 \text{ g} * 0,0256 \text{ ct/g} = 0,4096 \text{ cent}$

June 2023:

Fee indicator:	Aluminum: 270 €/t
Calculation	$16 \text{ g} * 0,027 \text{ ct/g} = 0,432 \text{ cent}$



iii. Cardboard Box

January 2023:

Fee indicator:	Paper and carton: 105 €/t
Calculation	$222 \text{ g} * 0,0105 \text{ ct/g} = 2,331 \text{ cent}$



June 2023:

Fee indicator:	Paper and carton: 112 €/t
Calculation	$222 \text{ g} * 0,0112 \text{ ct/g} = 2,486 \text{ cent}$

iv. Transparent Glass Water Bottle

January 2023:

Fee indicator:	Glass and ceramics: 102 €/t Aluminum: 256 €/t
Calculation	$480 \text{ g} * 0,0102 \text{ ct/g} = 4,896 \text{ cent}$ $0,6 \text{ g} * 0,0256 \text{ ct/g} = 0,01536 \text{ cent}$ Total: 4,91136 cent



June 2023:

Fee indicator:	Glass and ceramics: 108 €/t Aluminum: 270 €/t
Calculation	$480 \text{ g} * 0,0108 \text{ ct/g} = 5,184 \text{ cent}$ $0,6 \text{ g} * 0,027 \text{ ct/g} = 0,016 \text{ cent}$ Total: 5,2 cent

v. Canned Tomatoes

January 2023:

Fee indicator:	Ferrous metal: 256 €/t
Calculation	$44 \text{ g} * 0,0256 \text{ ct/g} = 1,1264 \text{ cent}$



June 2023:

Fee indicator:	Ferrous metal: 270 €/t
Calculation	$44 \text{ g} * 0,027 \text{ ct/g} = 1,188 \text{ cent}$

vi. Wooden Box

January 2023:

Fee indicator:	Wood: 41 €/t
Calculation	800 g * 0,0041 ct/g = 3,28 cent



WOODEN BOX

30 x 50 cm
800 g

June 2023:

Fee indicator:	Wood: 44 €/t
Calculation	800 g * 0,0044 ct/g = 3,52 cent

VII. Finland

Main PRO: Rinki

Source: <https://rinkiin.fi/en/for-companies/join-rinki/price-list/>

Note: Except for Plastic, the fees remained unchanged.

i. Transparent PET Bottle

January 2023:

Fee indicator:	Finnish Plastics Recycling Ltd, Plastic, B2c, Multi-plastic-packaging: 275 €/t
Calculation	42 g * 0,0275 ct/g = 1,155 cent



TRANSPARENT PET BOTTLE

1,5 liters
40 g
plastic cap 2 g

June 2023:

Fee indicator:	Finnish Plastics Recycling Ltd, Plastic, B2c, Multi-plastic-packaging: 290 €/t
Calculation	42 g * 0,029 ct/g = 1,218 cent

ii. Aluminum Can

June 2023:

Fee indicator:	Metals, Aluminum packaging, B2c: 96 €/t
Calculation	16 g * 0,0096 ct/g = 0,1536 cent



ALUMINIUM CAN

33 cl
16 g

iii. Cardboard Box

June 2023:

Fee indicator:	Paper fibre, carton and paper packaging, B2C: 86 €/t
Calculation	222 g * 0,0086 ct/g = 1,9092 cent



iv. Transparent Glass Water Bottle

June 2023:

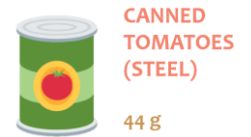
Fee indicator:	Glass packaging Class A: 98 €/t Aluminum: 96 €/t
Calculation	480 g * 0,0098 ct/g = 4,704 cent 0,6 g * 0,0096 ct/g = 0,00576 cent Total: 4,709 cent



v. Canned Tomatoes

June 2023:

Fee indicator:	Steel Packaging consumer: 96 €/t
Calculation	44 g * 0,0096 cent/g = 0,4224 cent



vi. Wooden Box

June 2023:

Fee indicator:	Other wooden pallets and other wooden packaging: 2,60 €/t
Calculation	800 g * 0,00026 cent/g = 0,208 cent



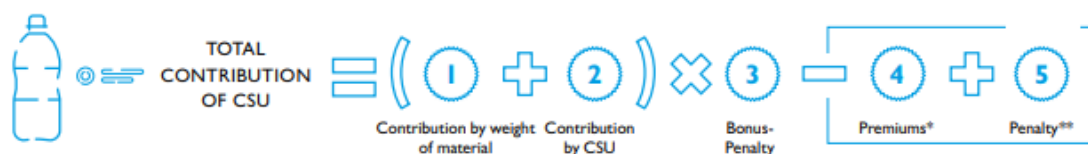
VIII. France

Main PRO: CITEO

Source: <https://www.citeo.com/tarifs-citeo-emballages-et-papiers>

Note: The fees remained unchanged.

Calculation method



* Premiums for integration of recycled materials

** If the CSU carries a Green Dot or confusing sign or marking (see page 11 for details on the suspension of the Green Dot penalty).

i. Transparent PET Bottle

June 2023:

Fee indicator:	clear PET bottles: 33,04 ct/kg Rigid PET packaging: 38,91 ct/kg
Units per CSU:	2 → 0,146 ct
Bonus/ Premium / Penalty:	4 % / 0 / 0
Calculation	$(40 \text{ g} * 0,03304 \text{ ct/g} + 2 \text{ g} * 0,03891 \text{ ct/g} + 0,146 \text{ cent}) * 0,96 = 1,4836 \text{ cent}$



ii. Aluminum Can

June 2023:

Fee indicator:	Aluminum: 13,03 ct/kg
Units per CSU:	1 → 0,0859 cent
Bonus/ Premium / Penalty:	4 % / 0 / 0
Calculation	$(16 \text{ g} * 0,01303 \text{ ct/g} + 0,0859 \text{ cent}) * 0,96 = 0,2826 \text{ cent}$



iii. Cardboard Box

June 2023:

Fee indicator:	Paper/cardboard: 17,07 ct/kg
Units per CSU:	1 → 0,0859 cent
Bonus/ Premium / Penalty:	0 % / 0 / 0
Calculation	$(222 \text{ g} * 0,01707 \text{ ct/g} + 0,0859 \text{ cent}) * 1 = 3,8754 \text{ cent}$



iv. Transparent Glass Water Bottle

June 2023:

Fee indicator:	Glass: 1,27ct/kg Aluminum: 13,03 ct/kg
----------------	---



Units per CSU:	2 → 0,146 cent
Bonus/ Premium / Penalty:	4 % / 0 / 0
Calculation	$(480 \text{ g} * 0,00127 \text{ ct/g} + 0,6 \text{ g} * 0,01303 \text{ ct/g} + 0,146 \text{ cent}) * 0,96 = 0,7329 \text{ cent}$

v. Canned Tomatoes

June 2023:

Fee indicator:	Acier: 4,88 ct/kg
Units per CSU:	1 → 0,0859 cent
Bonus/ Premium / Penalty:	0 % / 0 / 0
Calculation	$(44 \text{ g} * 0,00488 \text{ ct/g} + 0,0859 \text{ ct}) * 1 = 0,3006 \text{ cent}$



CANNED TOMATOES (STEEL)

44 g

vi. Wooden Box

June 2023:

Fee indicator:	Unprocessed materials from renewable, sustainably managed resources for which a recycling stream or organic recovery is under development (wood, cork): 37,58 ct/kg
Units per CSU:	1 → 0,0859 cent
Bonus/ Premium / Penalty:	0 % / 0 / 0
Calculation	$(800 \text{ g} * 0,03758 \text{ ct/g} + 0,0859 \text{ ct}) * 1 = 30,1499 \text{ cent}$



WOODEN BOX

30 x 50 cm
800 g

IX. Germany

Main PRO: Grüner Punkt

Source: <https://www.verpackgo.com/de/license-calculator/>

Note:

- To calculate the fees, 1 ton of each material was entered into the calculator. The respective values for the materials were then used for the product specific indicator.

- Fees include the use of the label
- Fees remained unchanged
- No fee indicator for wood was available

i. Transparent PET Bottle

June 2023:

Fee indicator:	Plastic: 799 €/t
Calculation	$42 \text{ g} * 0,0799 \text{ ct/g} = 3,3558 \text{ cent}$



ii. Aluminum Can

June 2023:

Fee indicator:	Aluminum: 820 €/t
Calculation	$16 \text{ g} * 0,082 \text{ ct/g} = 1,312 \text{ cent}$



iii. Cardboard Box

June 2023:

Fee indicator:	Carton: 171 €/t
Calculation	$222 \text{ g} * 0,0171 \text{ ct/g} = 3,7962 \text{ cent}$



iv. Transparent Glass Water Bottle

June 2023:

Fee indicator:	Glass: 48 €/t Aluminum: 820 €/t
Calculation	$480 \text{ g} * 0,0048 \text{ ct/g} = 2,304 \text{ cent}$ $0,6 \text{ g} * 0,082 \text{ ct/g} = 0,0492 \text{ cent}$ Total: 2,3532 cent



v. Canned Tomatoes

June 2023:

Fee indicator:	Ferrous metals: 760 €/t
Calculation	$44 \text{ g} * 0,076 \text{ cent/g} = 3,344 \text{ cent}$



vi. Wooden Box

June 2023:

Fee indicator:	<i>Not available</i>
Calculation	<i>Not available</i>



X. Italy

Main PRO: CONAI

Source: <https://www.conai.org/en/businesses/environmental-contribution/> and <https://www.conai.org/imprese/contributo-ambientale/>

Note: Fees remained unchanged.

i. Transparent PET Bottle

June 2023:

Fee indicator:	Plastic B1.2: 20 €/t Plastic B2.1: 350 €/t
Calculation	40 g * 0,002 ct/g = 0,08 cent 2 g * 0,035 ct/g = 0,07 cent Total: 0,15 cent



ii. Aluminum Can

June 2023:

Fee indicator:	Aluminum: 7 €/t
Calculation	16 g * 0,0007 ct/g = 0,0112 cent



iii. Cardboard Box

June 2023:

Fee indicator:	Paper level 1: 5 €/t
Calculation	222 g * 0,0005 ct/g = 0,111 cent



iv. Transparent Glass Water Bottle

June 2023:

Fee indicator:	Glass: 23 €/t Aluminum: 7€/t
Calculation	480 g * 0,0023 ct/g = 1,104 cent



	$0,6 * 0,0007 \text{ ct/g} = 0,00042 \text{ cent}$ Total: 1,10442 cent
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v. Canned Tomatoes

June 2023:

Fee indicator:	Steel: 5 €/t
Calculation	$44 \text{ g} * 0,0005 \text{ cent/g} = 0,022 \text{ cent}$



vi. Wooden Box

June 2023:

Fee indicator:	Wood: 8 €/t
Calculation	$800 \text{ g} * 0,0008 \text{ ct/g} = 0,64 \text{ cent}$



XI. Luxembourg

Main PRO: Valorlux

Source: https://www.valorlux.lu/media/634doafc6db92_gruener-punkt-tarife-2023-detailliert-pdf

Note: Fees remained unchanged and no specific indicator for wooden packaging was given.

i. Transparent PET Bottle

June 2023:

Fee indicator:	PV06: 0,1226 €/kg PV10: 0,1538 €/kg
Calculation	$40 \text{ g} * 0,01226 \text{ ct/g} = 0,4904 \text{ cent}$ $2 \text{ g} * 0,01538 \text{ ct/g} = 0,03076 \text{ cent}$ Total: 0,52116 cent



ii. Aluminum Can

June 2023:

Fee indicator:	PV05: 0,0286 €/kg
Calculation	$16 \text{ g} * 0,00286 \text{ ct/g} = 0,04576 \text{ cent}$



iii. Cardboard Box

June 2023:

Fee indicator:	PV02: 0,0444 €/kg
Calculation	222 g * 0,00444 ct/g = 0,98568 cent

**iv. Transparent Glass Water Bottle**

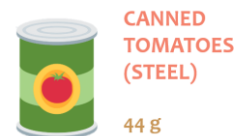
June 2023:

Fee indicator:	PV01: 0,0161 €/kg PV05: 0,0286 €/kg
Calculation	480 g * 0,00161 ct/g = 0,7728 cent 0,6 g * 0,00286 ct/g = 0,001716 cent Total: 0,7745 cent

**v. Canned Tomatoes**

June 2023:

Fee indicator:	PV04: 0,0107 €/kg
Calculation	44 g * 0,00107 cent/g = 0,04708 cent

**vi. Wooden Box**

June 2023:

Fee indicator:	<i>Not available</i>
Calculation	<i>Not available</i>

**XII. Netherlands**

Main PRO: Afvalfonds (SAV)

Source: <https://www.afvalfondsverpakkingen.nl/en/node/450>

Note: Fees remained unchanged.

i. Transparent PET Bottle

June 2023:

Fee indicator:	Plastic (lower rate): 0,79 €/kg
Calculation	42 g * 0,079 ct/g = 3,318 cent



ii. Aluminum Can

June 2023:

Fee indicator:	Aluminum: 0,16 €/kg
Calculation	$16 \text{ g} * 0,016 \text{ ct/g} = 0,256 \text{ cent}$



**ALUMINIUM
CAN**
33 cl
16 g

iii. Cardboard Box

June 2023:

Fee indicator:	Paper and cardboard: 0,012 €/kg
Calculation	$222 \text{ g} * 0,0012 \text{ ct/g} = 0,2664 \text{ cent}$



**CARDBOARD
BOX**
13,3 x 25,5 x 9 cm
222 g

iv. Transparent Glass Water Bottle

June 2023:

Fee indicator:	Glass: 0,06 €/kg Aluminum: 0,16 €/kg
Calculation	$480 \text{ g} * 0,006 \text{ ct/g} = 2,88 \text{ cent}$ $0,6 * 0,016 \text{ ct/g} = 0,0096 \text{ cent}$ Total: 2,8896 cent



**TRANSPARENT
GLASS WATER
BOTTLE**
75 cl
480 gr
aluminium cap 0,60 g

v. Canned Tomatoes

June 2023:

Fee indicator:	Other metals: 0,25 €/kg
Calculation	$44 \text{ g} * 0,025 \text{ cent/g} = 1,1 \text{ cent}$



**CANNED
TOMATOES
(STEEL)**
44 g

vi. Wooden Box

June 2023:

Fee indicator:	Wood: 0,010 €/kg
Calculation	$800 \text{ g} * 0,0010 \text{ cent/g} = 0,8 \text{ cent}$



WOODEN BOX
30 x 50 cm
800 g

XIII. Portugal

Main PRO: SPV

Source:

https://www.pontoverde.pt/aderentes_uk/Green%20Dot%20Fees%202023.pdf

Note: Fees remained unchanged.

i. Transparent PET Bottle

June 2023:

Fee indicator:	Plastic: 0,1616 €/kg
Calculation	$42 \text{ g} * 0,01616 \text{ ct/g} = 0,67872 \text{ cent}$



ii. Aluminum Can

June 2023:

Fee indicator:	Aluminum: 0,0405 €/kg
Calculation	$16 \text{ g} * 0,00405 \text{ ct/g} = 0,0648 \text{ cent}$



iii. Cardboard Box

June 2023:

Fee indicator:	Paper and Cardboard: 0,1067 €/kg
Calculation	$222 \text{ g} * 0,01067 = 2,36874 \text{ cent}$



iv. Transparent Glass Water Bottle

June 2023:

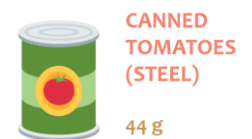
Fee indicator:	Glass: 0,0204 €/kg Aluminum: 0,0405 €/kg
Calculation	$480 \text{ g} * 0,00204 \text{ ct/g} = 0,9792 \text{ cent}$ $0,6 * 0,00405 \text{ ct/g} = 0,00243 \text{ cent}$ Total: 0,98163 cent



v. Canned Tomatoes

June 2023:

Fee indicator:	Steel: 0,1581 €/kg
Calculation	$44 \text{ g} * 0,01581 \text{ cent/g} = 0,69564 \text{ cent}$



vi. Wooden Box

June 2023:

Fee indicator:	Wood: 0,0564 €/kg
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Calculation	$800 \text{ g} * 0,00564 \text{ cent/g} = 4,512 \text{ cent}$
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XIV. Romania

Main PRO: ECO-ROM

Source: <https://ecoromambalaje.ro/informatii-publice/tarife/>

Currency exchange:

- January: 1 Lei → 0,203 €
- June: 1 Lei → 0,201 €

Note: The fees remained unchanged; however, some differences occur due to changing currency exchange values.

i. Transparent PET Bottle

January 2023:

Fee indicator:	PET: 740 lei/t → 150,62 €/t
Calculation	$42 \text{ g} * 0,015062 \text{ ct/g} = 0,632604 \text{ cent}$



June 2023:

Fee indicator:	PET: 740 lei/t → 148,74 €/t
Calculation	$42 \text{ g} * 0,014874 \text{ ct/g} = 0,625 \text{ cent}$

ii. Aluminum Can

January 2023:

Fee indicator:	Aluminum: 725 lei/t → 147,56 €/t
Calculation	$16 \text{ g} * 0,014756 \text{ ct/g} = 0,236096 \text{ cent}$



June 2023:

Fee indicator:	Aluminum: 725 lei/t → 145,725 €/t
Calculation	$16 \text{ g} * 0,0145725 \text{ ct/g} = 0,233 \text{ cent}$

iii. Cardboard Box

January 2023:

Fee indicator:	Carton: 395 lei/t → 80,40 €/t
Calculation	$222 \text{ g} * 0,008040 \text{ ct/g} = 1,78488 \text{ cent}$



June 2023:

Fee indicator:	Carton: 395 lei/t → 79,395 €/t
Calculation	222 g * 0,0079395 ct/g = 1,763 cent

iv. Transparent Glass Water Bottle

January 2023:

Fee indicator:	Glass: 490 lei/t → 99,73 €/t Aluminum: 725 lei/t → 147,56 €/t
Calculation	480 g * 0,009973 ct/g = 4,78704 cent 0,6 g * 0,014756 ct/g = 0,0088536 cent Total: 4,7958936 cent



June 2023:

Fee indicator:	Glass: 490 lei/t → 98,49 €/t Aluminum: 725 lei/t → 145,725 €/t
Calculation	480 g * 0,009849 ct/g = 4,728 cent 0,6 g * 0,0145725 ct/g = 0,008 cent Total: 4,736 cent

v. Canned Tomatoes

January 2023:

Fee indicator:	Otel: 400 lei/t → 81,2 €/t
Calculation	44 g * 0,00812 cent/g = 0,35728 cent



June 2023:

Fee indicator:	Otel: 400 lei/t → 80,4 €/t
Calculation	44 g * 0,00804 cent/g = 0,354 cent

vi. Wooden Box

January 2023:

Fee indicator:	Lemn: 300 lei/t → 60,9 €/t
Calculation	800 g * 0,00609 cent/g = 4,872 cent



June 2023:

Fee indicator:	Lemn: 300 lei/t → 60,3 €/t
Calculation	800 g * 0,00603 cent/g = 4,824 cent

XV. Slovenia

Main PRO: Slopak

Source: <https://www.slopak.si/slopak-storitve>

Note: Fees remained unchanged.

i. Transparent PET Bottle

June 2023:

Fee indicator:	Plastika PET: 220 €/t
Calculation	42 g * 0,022 ct/g = 0,924 cent



ii. Aluminum Can

June 2023:

Fee indicator:	Metal Aluminum: 220 €/t
Calculation	16 g * 0,022 ct/g = 0,352 cent



iii. Cardboard Box

June 2023:

Fee indicator:	Papir: 8 €/t
Calculation	222 g * 0,0008 ct/g = 0,178 cent



iv. Transparent Glass Water Bottle

June 2023:

Fee indicator:	Glass: 10 €/t Metal Aluminum: 220 €/t
Calculation	480 g * 0,001 ct/g = 0,48 cent 0,6 g * 0,022 ct/g = 0,0132 cent Total: 0,493 cent



v. Canned Tomatoes

June 2023:

Fee indicator:	Kovine jeklo: 279 €/t
Calculation	44 g * 0,0279 cent/g = 1,228 cent



CANNED TOMATOES (STEEL)
44 g

vi. Wooden Box

June 2023:

Fee indicator:	Les: 35 €/t
Calculation	800 g * 0,0035 cent/g = 2,8 cent



WOODEN BOX
30 x 50 cm
800 g

XVI. Spain

Main PRO: Ecoembes

Source: <https://www.ecoembes.com/en/companies/packaging-declaration/green-dot-fees>

Note: Fees remained unchanged.

i. Transparent PET Bottle

June 2023:

Fee indicator:	PET Packaging: 0,423 €/kg PET rigid: 0,396 €/kg
Calculation	40 g * 0,0423 ct/g = 1,692 cent 2 g * 0,0396 ct/g = 0,0792 cent Total: 1,7712 cent



TRANSPARENT PET BOTTLE
1,5 liters
40 g
plastic cap 2 g

ii. Aluminum Can

June 2023:

Fee indicator:	Beverage cans: 0,048 €/kg
Calculation	16 g * 0,0048 ct/g = 0,0768 cent



ALUMINIUM CAN
33 cl
16 g

iii. Cardboard Box

June 2023:

Fee indicator:	Paper and cardboard: 0,088 €/kg
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CARDBOARD BOX
13,3 x 25,5 x 9 cm
222 g

Calculation	$222 \text{ g} * 0,0088 \text{ ct/g} = 1,9536 \text{ cent}$
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iv. Transparent Glass Water Bottle

June 2023:

Fee indicator:	Glass (weight): 0,03045 €/kg Glass (unit): 0,00432 € / unit Other aluminum: 0,034 €/kg
Calculation	$480 \text{ g} * 0,003045 \text{ ct/g} + 0,432 \text{ ct} = 1,8936 \text{ cent}$ $0,6 \text{ g} * 0,0034 \text{ ct/g} = 0,00204 \text{ cent}$ Total: 1,89564 cent



v. Canned Tomatoes

June 2023:

Fee indicator:	Other steel packaging: 0,133 €/kg
Calculation	$44 \text{ g} * 0,0133 \text{ cent/g} = 0,5852 \text{ cent}$



vi. Wooden Box

June 2023:

Fee indicator:	Wood and cork: 0,007 €/kg
Calculation	$800 \text{ g} * 0,0007 \text{ cent/g} = 0,56 \text{ cent}$



XVII. Sweden

Main PRO: FTI

Source: <https://fti.se/en/company/packaging-fees>

Source for Glass: <https://glasatervinning.se/for-producenter-och-importorer/pris-lista/>

Currency exchange:

- January: 1 SEK → 0,09 €
- June: 1 SEK → 0,086 €

Note: Most changes are due to different currency exchange values, except for glass, where the fee indicator was also increased.

i. Transparent PET Bottle

January 2023:

Fee indicator:	Plastic (low): 5,52 SEK/kg → 0,5 €/kg
Calculation	42 g * 0,05 ct/g = 2,1 cent



June 2023:

Fee indicator:	Plastic (low): 5,52 SEK/kg → 0,47472 €/kg
Calculation	42 g * 0,047472 ct/g = 1,994 cent

ii. Aluminum Can

January 2023:

Fee indicator:	Aluminum: 6 SEK/kg → 0,81 €/kg
Calculation	16 g * 0,081 ct/g = 1,296 cent



June 2023:

Fee indicator:	Aluminum: 6 SEK/kg → 0,516 €/kg
Calculation	16 g * 0,0516 ct/g = 0,826 cent

iii. Cardboard Box

January 2023:

Fee indicator:	Paper (low): 2,24 SEK/kg → 0,2 €/kg
Calculation	222 g * 0,02 ct/g = 4,44 cent



June 2023:

Fee indicator:	Paper (low): 2,24 SEK/kg → 0,19264 €/kg
Calculation	222 g * 0,019264 ct/g = 4,277 cent

iv. Transparent Glass Water Bottle

January 2023:

Fee indicator:	Glass: 0,72 SEK/kg → 0,065 €/kg Aluminum: 6 SEK/kg → 0,81 €/kg
Calculation	480 g * 0,0065 ct/g = 3,12 cent



	$0,6 \text{ g} * 0,081 \text{ ct/g} = 0,0486 \text{ cent}$ Total: 3,1686 cent
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June 2023:

Fee indicator:	Glass: 0,83 SEK/kg → 0,07138 €/kg Aluminum: 6 SEK/kg → 0,516 €/kg
Calculation	$480 \text{ g} * 0,007138 \text{ ct/g} = 3,42624 \text{ cent}$ $0,6 \text{ g} * 0,0516 \text{ ct/g} = 0,0396 \text{ cent}$ Total: 3,457 cent

v. Canned Tomatoes

January 2023:

Fee indicator:	Steel plate: 4,20 SEK/kg → 0,378 €/kg
Calculation	$44 \text{ g} * 0,0378 \text{ cent/g} = 1,6632 \text{ cent}$



CANNED TOMATOES (STEEL)

44 g

June 2023:

Fee indicator:	Steel plate: 4,20 SEK/kg → 0,3612 €/kg
Calculation	$44 \text{ g} * 0,03612 \text{ cent/g} = 1,589 \text{ cent}$

vi. Wooden Box

January + June 2023:

Fee indicator:	<i>Not available</i>
Calculation	<i>Not available</i>



WOODEN BOX

30 x 50 cm
800 g

XVIII. UK

Main PRO: VALPAK

Source: <https://www.letsrecycle.com/prices/prns/prn-prices-2023/>

Currency exchange:

- January: 1 Pound → 1,13 €
- June: 1 Pound → 1,16 €

i. Transparent PET Bottle

January 2023:

Fee indicator:	Plastic: 412,5 £/t → 466,13 €/t
Calculation	42 g * 0,046613 ct/g = 1,9577 cent



June 2023:

Fee indicator:	Plastic: 315 £/t → 365,40 €/t
Calculation	42 g * 0,036540 ct/g = 1,5347 cent

ii. Aluminum Can

January 2023:

Fee indicator:	Aluminum: 175 £/t → 197,75 €/t
Calculation	16 g * 0,019775 ct/g = 0,3164 cent



June 2023:

Fee indicator:	Aluminum: 290 £/t → 336,40 €/t
Calculation	16 g * 0,03364 ct/g = 0,5382 cent

iii. Cardboard Box

January 2023:

Fee indicator:	Paper: 45 £/t → 50,85 €/t
Calculation	222 g * 0,005085 ct/g = 1,1289 cent



June 2023:

Fee indicator:	Paper: 25 £/t → 29 €/t
Calculation	222 g * 0,0029 ct/g = 0,6438 cent

iv. Transparent Glass Water Bottle

January 2023:

Fee indicator:	Glass (remelt): 115 £/t → 129,95 €/t Aluminum: 175 £/t → 197,75 €/t
Calculation	480 g * 0,012995 ct/g = 6,2376 cent



	$0,6 \text{ g} * 0,019775 \text{ ct/g} = 0,0119 \text{ cent}$ Total: 6,2495 cent
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June 2023:

Fee indicator:	Glass (remelt): 130 £/t → 150,8 €/t Aluminum: 290 £/t → 336,40 €/t
Calculation	$480 \text{ g} * 0,01508 \text{ ct/g} = 7,2384 \text{ cent}$ $0,6 \text{ g} * 0,03364 \text{ ct/g} = 0,0202 \text{ cent}$ Total: 7,2586 cent

v. Canned Tomatoes

January 2023:

Fee indicator:	Steel: 80 £/t → 90,40 €/t
Calculation	$44 \text{ g} * 0,00904 \text{ cent/g} = 0,3978 \text{ cent}$



June 2023:

Fee indicator:	Steel: 41,5 £/t → 48,14€/t
Calculation	$44 \text{ g} * 0,004814 \text{ cent/g} = 0,2118 \text{ cent}$

vi. Wooden Box

January 2023:

Fee indicator:	Wood: 45 £/t → 50,85 €/t
Calculation	$800 \text{ g} * 0,005085 \text{ cent/g} = 4,0680 \text{ cent}$



June 2023:

Fee indicator:	Wood: 23,5 £/t → 27,26 €/t
Calculation	$800 \text{ g} * 0,002726 \text{ cent/g} = 2,1808 \text{ cent}$