

Calculating Average Recycled Content

Summary

This document provides information for APCO Members on how to measure and report the average level of recycled content in packaging.

APCO Members are required to indicate use of recycled content in their packaging as part of their APCO Annual Report. In addition, Members are able to provide the average amount of recycled content per material type within the packaging metrics portion of the APCO Annual Report. This is reported as a percentage, calculated by dividing the total quantity of recycled material divided by the total amount of that material placed on the market. Further detail on this will be provided later in this document.

Background

APCO Brand Owner Members (also known as Signatories to the [Australian Packaging Covenant](#)) are obligated to “implement policies or procedures to buy products made from recycled materials”. In addition, Members are required to review their packaging against the [Sustainable Packaging Guidelines](#) (SPGs) which includes Principle 5 – Use Recycled Materials.

In addition, Australia is working towards the four 2025 National Packaging Targets (2025 Targets), as shown in Figure 1 below. As a result, it is important for businesses to track their progress, in order to determine opportunities for areas of improvement.



Figure 1. Australia’s 2025 National Packaging Targets

In particular, many APCO Members have requested further detail on how best to track their use of recycled materials, as well as their progress towards the 2025 Target of 50% average recycled content across all packaging.

This document will provide guidance on how best to track use of recycled content.

Definition

Recycled content is defined as:

The proportion, by mass, of pre-consumer and post-consumer recycled material in packaging (AS/ISO 14021). ‘Pre-consumer’ material is material diverted from the waste stream during manufacturing (excluding rework). ‘Post-consumer’ material is material waste generated by households or by commercial, industrial and institutional facilities expressed as a percentage of the quantity of packaging material put onto the market.¹

Differences between tracking for APCO Annual Reports and the 2025 Targets

APCO Annual Reports require Members to report on use of recycled content, whether this be pre-consumer or post-consumer.

It is important to note however that the 2025 Target of ‘50% average recycled content in all packaging’ applies to post-consumer recycled content only. This is to encourage and monitor the shift to increased circularity. APCO also recognises the importance of pre-consumer recycled content in packaging to support end-markets for material that would otherwise go to landfill.²

Calculations

The most accurate way to estimate average recycled content is by developing a database by stock keeping unit (SKU). For APCO Brand Owner Members, this will also support the collection of data for APCO Annual Reports and reviews of packaging against the SPGs.

Data collected should include the weight of packaging and recycled content per material type for each SKU. From this, it would be possible to calculate:

1. Total amount of packaging placed on the market in tonnes
2. Total amount of recycled material in packaging in tonnes – indicating also whether it is pre-consumer or post-consumer recycled content.

With this data you can then determine your average recycled content. An example of this can be found below.

Example

A company has put 1000 tonnes of packaging into the Australian market in 2019.

Of that 1000 tonnes:

Material	Amount (in tonnes)	Amount of post-consumer recycled content	Amount of pre-consumer recycled content	Percentage of recycled content for APCO Annual Report	Percentage of recycled content for 2025 Targets
Cardboard	650	435.50	117	85%	67%

¹ Australian Packaging Covenant Organisation, 2019. Sustainable Packaging Guidelines. Available at: [https://documents.packagingcovenant.org.au/public-documents/Sustainable%20Packaging%20Guidelines%20\(SPGs\)](https://documents.packagingcovenant.org.au/public-documents/Sustainable%20Packaging%20Guidelines%20(SPGs))

² Australian Packaging Covenant Organisation, 2021. Recycled Content Guide. Available at: <https://documents.packagingcovenant.org.au/public-documents/Recycled%20Content%20Guide>

LDPE	50	2.5	0	5%	5%
PET	300	120	60	60%	40%
Total	1000	558	177	Overall recycled content average: 73.5%	Overall post-consumer recycled content average: 55.8%

Therefore:

- **For APCO Annual Reporting**, 735 tonnes of their 1000 tonnes is recycled content, **resulting in an overall recycled content average of 73.5%**.
- **For tracking towards the 2025 Target for recycled content**, 558 tonnes of their 1000 tonnes is post-consumer recycled content, **resulting in an overall post-consumer recycled content average of 55.8%**

Frequently asked questions

For the 2025 Targets, do I need to have 50% recycled content in all of my packaging formats?

No. The 50% recycled content target is an average of the amount of recycled content across all packaging in the Australian marketplace.

In some cases, you may have packaging formats that have 0% recycled content, while others may have 100% recycled content.

It is important to consider what is the most suitable for your product and packaging. To do so, consider the questions in 'Principle 5 – Use Recycled Materials' of the [Sustainable Packaging Guidelines](#) (SPGs).

What packaging should be considered when calculating the average?

It is important that all packaging used by your organisation is considered. This includes primary, secondary and tertiary packaging.

Primary packaging, also known as consumer or retail packaging, refers to the layer/s that contain and protect individual product units up to the point of sale (e.g. bag, bottle, jar, box etc.) and that are removed for use. Primary packaging also includes any packaging given to consumers at the point of retail sales (e.g. retail bag, tissue paper etc.) as well as packaging delivered to consumers with online sales (e.g. bag, cushioning, box etc.)³

Secondary packaging is additional to the primary packaging and is used to protect and collate individual product units during storage, transport and distribution. This may include shelf-ready packaging (SRP), also known as retail-ready packaging (RRP) or

³ Australian Packaging Covenant Organisation, 2019.

counter- top display units (CDUs)⁴, containing multiple product units and used for retail display.

Tertiary packaging is used in the protection and shipping of a product. This type of packaging is also known as distribution packaging, transport packaging and business-to-business (B2B packaging)⁵. It consists of packaging and components such as cardboard cartons, pallets, slip sheets, stretch wrap, strapping and any labels. Tertiary packaging is rarely seen by consumers.

I am unable to use packaging with recycled content that is in direct contact with my product. What should I do?

If you are unable to incorporate recycled content in primary packaging for whatever reason, consider where you can utilise this material in secondary and tertiary packaging. In many cases, tertiary packaging such as shipping cartons are often found to have recycled content. It is important to speak with your packaging suppliers to determine if any recycled content is currently being used, and to support your calculation of the amount of recycled content used by your organisation.

When completing the Packaging Metrics section of the APCO Annual Report (not required in the SME Report), what does ‘unknown source’ mean in relation to recycled content?

Those Members who are reporting against either the Full Framework or the Packaging Manufacturer/Supplier Framework will need to complete a packaging metrics section. This is where businesses provide the total tonnes of each material type used within their chosen 12-month reporting period. In addition to this, Members are asked to provide average recycled content. For this, you will have to indicate the relevant source type as being either pre-consumer, post-consumer, or from an unknown source.

If you are aware of the type of your recycled content, the other source/s should be put at 0%. For example, you cannot have 100% in all three recycled content fields, as your packaging cannot be 100% pre-consumer, 100% post-consumer and 100% unknown source.

If you do not know if the recycled content is either from a pre-consumer or post-consumer source, you would leave both of those fields as 0%, and put your average recycled content percentage for that material in the unknown source box.

Cardboard

Total tonnes used	<input type="text" value="100"/>	Average recycled content (%) (pre consumer)	<input type="text"/>
Tonnes reusable packaging	<input type="text" value="10"/>	Average recycled content (%) (post consumer)	<input type="text"/>
Total single use packaging	<input type="text" value="90"/>	Average recycled content (%) (unknown)	<input type="text" value="0"/>

OR

Where can I find more information on recycled content in packaging?

For more information on recycled content, please refer to APCO’s [Recycled Content Guide](#).

⁴ Australian Packaging Covenant Organisation, 2019.

⁵ Australian Packaging Covenant Organisation, 2019.