

Plastic packaging and the environment

Positive life cycle assessment

Background and the role of Swiss Post

- Swiss Post acts as a transporter and does not prescribe what packaging you should use as a customer. This decision is up to the client.
- Using classic plastic packaging to package goods is currently a hotly debated practice.
- We are seeing more and more market and public demand for environmentally-friendly alternatives, or indeed for deliveries that don't use any packaging at all. At the same time, recipients expect their magazines to be delivered in mint condition whatever the weather.
- The life cycle assessment for certain types of plastic packaging is better than for paper packaging. However, plastic packaging is increasingly associated with plastic waste and pollution of the waterways and oceans.
- Recipient customers and senders of magazines, catalogues and mailings are demanding additional solutions because film wrap used as packaging is perceived to be harmful to the environment; recipients complain to the sender and the sender then complains to their printer or lettershop.
- For years, Swiss Post has supported climate protection, increasing its CO₂ efficiency by at least 25 percent compared to 2010 levels by the end of 2020. More information at www.swisspost.ch/responsibility > Our priorities.

Packaging, yes or no?

- Packaging protects the contents of the consignment against wind, weather and mechanical processing equipment
- Inserts can be added and are not lost in transport

The three most common packaging types

Plastic film (PE)

- The most environmentally-friendly wrapping currently available is plastic film (PE)
- The PE film is made of polyethylene and contains the organic raw materials carbon and hydrogen that are also found in plant-based fibres (paper)
- PE film does not contain any softeners or heavy metals
- The life cycle assessment for certain types of plastic packaging is better than for paper packaging: compared to paper wrappers, raw material usage for PE film is four-times lower
- The impact on air and on water sources is also lower and the landfill volume is much higher for paper
- When incinerated with normal household waste, the film is rendered harmless, with no toxic vapours or gases being emitted
- If the film enters the paper collection process, it can easily be separated by the paper manufacturer and incinerated in a way that renders it harmless
- Plastic packaging is very inexpensive to produce and offers exceptional protection against dampness and damage; the it also serves as an address label and stops inserts from falling out
- On the Swiss market, there are manufacturers that produce organic film, e.g. from potato skins, maize starch or sugar cane, but these are normally only compostable in an industrial process and not in consumers' own gardens.



Envelopes and paper wrapping

- Envelopes and paper wrapping are sealed on all sides
- If in doubt, better envelope/paper quality with heavier weights should always be used
- White or tinted envelopes and paper wrapping are ideally suited to mechanical processing at Swiss Post (in accordance with the Euro colour scale of four-colour printing)
- The paper needs to be of a quality that ensures that no text or image elements from the content are visible in the address and coding zones
- An envelope or paper wrapping protects the contents and can be disposed of in waste paper recycling collections
- In production, paper requires four times the amount of raw materials that PE plastic film does



Open dispatch

- Of course consignments can still be sent as open consignments, providing that certain conditions are met.
- These are sometimes subject to the special item surcharge. More information at www.swisspost.ch/layout-of-letters.
- For preliminary sorting of PP-franked consignments, only the remaining consignments attract the special item surcharge. More information at www.swisspost.ch/upstream-services.
- For newspapers and magazines (mandatory preliminary sorting), a surcharge is applied for the consignments in local or other bundles (as from 1 January 2022 only for other bundles). More information at www.swisspost.ch/print-media.
- Open mailings meet the environmental expectations that customers have of Swiss Post.
- Customers can use Swiss Post's free sorting software (Bulk Mailing Manager and the "Preparation of newspaper dispatch" online service).
- No additional costs are incurred when nesting the consignments – either for paper envelopes or with film wrap.
- Swiss Post offers a solution for avoiding plastic.



Alternative packaging types

Organic film wrap – biodegradable

- Biodegradable film wrap is not a genuine alternative to plastic film (PE)
- The manufacturing process for this film is based on sustainable resources, but their proportion is only between 20 to 30 percent; the main raw material is polyethelene, which accounts for 70 to 80 percent
- The lower strength of the biodegradable film means that a thicker film is necessary, increasing the amount of material used and reducing the environmental performance

Organic film wrap – compostable

- An alternative to the widespread PE film is compostable* film
 - The raw materials used to manufacture compostable film are derived from food waste such as maize starch, sugar cane or potato skins
- * industrially compostable, not in garden compost

Biodegradable vs. compostable:

- In both cases, microorganisms can decompose the product in water, CO₂ and biomass.
- For products certified as compostable, statutory requirements apply while biodegradation is a natural process (without any legal obligations).
- The composting process is a human-controlled biodegradation process with the aim of composting material more quickly, with the resulting biomass being used for agricultural purposes
- This means that composting is always a biodegradation process, but not every instance of biodegradation is an example of composting
- Products certified as compostable require the conditions of industrial composting plants (and are therefore **not** suitable for composting in gardens)





Paper wrapping

See information under “Envelopes and paper wrappings”.

EMPA study

- The “Ecology of magazine packaging” study was conducted in November 2020
- In this study, various types of film for protecting the mailing of a magazine were examined in terms of their environmental impact and compared to a paper envelope
- Basis: “Packaging a magazine until it reaches the reader” – this includes the production of the magazine, the film/envelope for the packaging and the cost of transport to the reader
- Here’s how the various types of packaging performed when measuring their CO₂ footprint: (1 = top, 5 = flop)
 1. PE-based film wrap, 15 µm thin and PE film recycled plastic with a recycled component of 40 percent
 2. PE-based film, 20 µm standard
 3. Organic wrap I’m green
 4. Organic polyethylene (with organic waste)
 5. Paper envelope
- Conclusions:
 - Assessments of CO₂ footprints and aspects of environmental harm show the same picture
 - Fossil-fuel based film performs better than organic-based film
 - All types of film perform better than paper envelopes

Life cycle assessment – overview

Packaging type	Material	Raw materials	Life cycle assessment
Plastic film	Polyethylene (PE)	Hydrogen, carbon; no toxic vapours and gases emitted during incineration	
Organic plastic film	Organic components such as potato skins, sugar cane, maize starch	20–30% sustainable raw materials 70–80% polyethylene = main component normally these types of film are not compostable	
Paper	Raw fibres	Plant-based fibres, hydrogen, carbon; four times more raw material used than for PE film	
Open dispatch	None	No waste	

Consignment tests

- Under its entrepreneurial responsibility, (ecological) sustainability is important to Swiss Post. Swiss Post is also committed to environmentally-friendly packaging solutions.
- Swiss Post is happy to review alternative types of film and other materials and offers you the option of testing packaging ideas on its sorting systems
- The materials are tested in one of the three Swiss Post letter centers (Härkingen SO, Zürich-Mülligen, Eclépens VD)
- Contact your Customer Advisor to make an appointment

Contact and advice

For queries related to packaging, please contact the final proof team. Final proof advice is available in all regions of Switzerland and in all national languages

www.swisspost.ch/final-proof

For questions on products and prices, please contact your Customer Advisor.