#### **Press Release**

**Egg Packaging**

**Better Not Made of Cardboard**

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| **Easter time is egg time. And for those who want to store and transport eggs safely, egg packaging made from 100 percent recycled plastic proves to be the best choice: Compared to cardboard cartons, the lightweight plastic containers offer greater stability and are more resistant to moisture. Their smooth surface also reduces the risk of contamination by germs. Additionally, the packaging allows a direct view of the condition of the eggs. Moreover, plastic packaging can be produced in an energy-efficient manner and recycled after use.**  Brightly colored Easter eggs are a traditional sign for celebrating spring, life, and renewal. Everything that plastic also represents: lightness, ecology, and recycling.  **Plastic Egg Cartons: A Significant Difference**  A conventional gray 10-egg carton made of cardboard weighs about 45-50 grams, while the plastic alternative is nearly 40 percent lighter[[1]](#footnote-1). With around 13.1 billion eggs produced annually in Germany[[2]](#footnote-2) and packaged in approximately 1 billion egg cartons[[3]](#footnote-3), this weight difference adds up significantly: The total weight difference between the two types of packaging amounts to about 20,000 tons—the equivalent of almost 3,000 trucks[[4]](#footnote-4). Due to the twice as high stacking density when transporting empty plastic egg cartons, another 3,000 truck trips per year can be avoided. These transport savings through plastic packaging conserve energy and reduce CO₂ emissions[[5]](#footnote-5).  **Cardboard Cartons: A Complex Process with Environmental Costs**  The production of cardboard egg cartons is anything but simple. Even recycling wastepaper is a complex process: Collected paper must be sorted and then cleaned using mechanical and chemical methods. The wastepaper is then dissolved and processed into a stable fiber mat. The entire process requires a significant amount of water, energy, and technical precision. Depending on the requirement, the finished cardboard is also coated and printed. Estimates suggest that about 10 to 20 percent of new paper from fresh wood is also used. This is not truly an ecological system since, in addition to the trees that are felled, the production of fresh fiber paper requires an average of about 50,000 liters of water per ton—one reason why the German Nature and Biodiversity Conservation Union (NABU) has long stated that paper production harms the environment and nature[[6]](#footnote-6). By using egg packaging made from 100 percent recycled plastic (rPET), 84 percent less water and about 26 percent less energy are required[[7]](#footnote-7).  **Packaging as a Valuable Material: The Recycling Advantage of Plastic**  Used egg cartons cannot always be recycled and reintroduced into the material cycle—if an egg breaks, which often happens with cardboard, the packaging must go into residual waste instead of paper recycling. In contrast, clean or cleaned plastic containers can be recycled up to 100 percent. Furthermore, an increasing number of plastic packages are already made from recycled material (rPET), further improving their ecological footprint.  **Robust Shell: More Protection, Less Resource Consumption**  Plastic packaging is resistant and less susceptible to dirt and moisture penetration. This increases product protection and extends shelf life. Additionally, transparent plastic containers allow an immediate check of whether the eggs are intact. If an egg is damaged, the plastic packaging prevents leakage and protects other packages and, depending on the packaging design, the other eggs from contamination. This is a key advantage—Austrian specialist for transparent egg packaging “Ovotherm” points out that producing 10 eggs requires 40 to 50 times more resources than producing their packaging. A broken egg can occur in both paper and plastic packaging. The fundamental difference is that in a cardboard package, if one egg breaks, the leaking liquid contaminates the packaging and the eggs below, making them unsellable. If an egg breaks in a cardboard package, up to 19 intact eggs may need to be discarded. Furthermore, the environmental impact of just two damaged eggs per 100 packaged eggs is as high as the impact of packaging all 100 eggs[[8]](#footnote-8).  **Cardboard as a Germ Trap: Why Plastic Offers Better Protection**  The higher resistance of plastic packaging to moisture is a crucial hygiene factor: While the porous structure of cardboard absorbs moisture and creates a favorable environment for microorganisms, plastic surfaces are smoother and less permeable, making it harder for bacteria to survive. This means the risk of germ transmission is generally higher in cardboard egg cartons than in plastic ones. According to Ökotest, many consumers are unaware that egg cartons can be hazardous to health.  The reason: Eggs are only roughly cleaned before packaging, meaning pathogens can remain on the shells and transfer to the carton. Particularly dangerous are salmonella, which can cause severe gastrointestinal illnesses. For this reason, the German Food Hygiene Regulation requires food to be protected from any contamination during storage. It is therefore strongly advised against reusing egg cartons, as, unlike plastic containers, cardboard cannot be cleaned. Used egg cartons cannot always be recycled and reintroduced into the material cycle—if an egg breaks, which often happens with cardboard, the packaging must go into residual waste instead of paper recycling. In contrast, clean or cleaned plastic containers can be recycled up to 100 percent. Furthermore, an increasing number of plastic packages are already made from recycled material (rPET), further improving their ecological footprint.  **Image Material:** | **Contact**  Claudia Wörner  yes or no Media GmbH  Vor dem Lauch 4  70567 Stuttgart  Germany  [www.yes-or-no.de](http://www.yes-or-no.de)  Tel + 49 711 758589 00  presse@yes-or-no.de  Characters: 6.110 |
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**Image 1**



*Egg Packaging Made of Plastic – More Hygienic, More Stable, and with a Clear View of the Product. (ALPLA, own image)*

**Image 2**

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*Cardboard egg cartons pose a higher risk of germ transmission compared to plastic ones. (ALPLA, own image)*

**About „Plastic is fantastic“**

"Plastic is fantastic" refers to the relationship between humans and one of the most elementary building blocks of civilization: plastic. With factual contributions, the initiative aims to achieve the appreciation that is appropriate for the versatile material.

The Austrian specialist for plastic packaging Alpla has launched "Plastic is fantastic" – because the company believes in the recyclable material. For example, Alpla is now in its third generation of commitment to sustainable recycling solutions and is also a pioneer in the development of new bioplastics. What makes plastic so fantastic is also shown on our website ["Plastic is fantastic"](https://www.plasticisfantastic.info/en).

1. Dimensions: 19.1 cm length, 14.5 cm width, 6.4 cm height [↑](#footnote-ref-1)
2. https://www.destatis.de/DE/Presse/Pressemitteilungen/2024/03/PD24\_104\_413.html [↑](#footnote-ref-2)
3. berücksichtigt nicht den Anteil der Eier, die unverpackt verkauft oder industriell

   weiterverarbeitet werden [↑](#footnote-ref-3)
4. Assumed Weight: Truck – 7 Tons [↑](#footnote-ref-4)
5. https://www.ovotherm.com/de/environment/ [↑](#footnote-ref-5)
6. https://www.nabu.de/umwelt-und-ressourcen/ressourcenschonung/papier/30384.html [↑](#footnote-ref-6)
7. https://www.ovotherm.com/de/environment/ [↑](#footnote-ref-7)
8. <https://www.ovotherm.com/site/assets/files/7045/umweltfolder_deutsch.pdf> [↑](#footnote-ref-8)