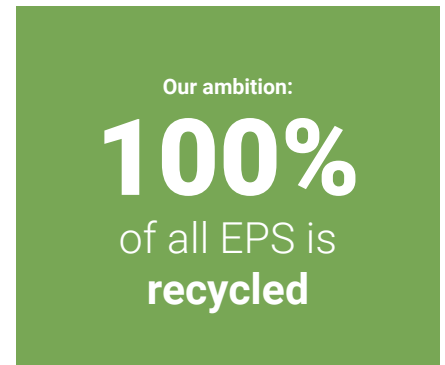




# Modernisation and expansion of the EPS recycling system



EPS – expanded polystyrene – is a lightweight and environmentally friendly material consisting of 98% air and 2% polystyrene (plastic). In Denmark, it is known under the brand name Flamingo.

- EPS is 100% recyclable, which is why EPS-branchen has been running the industry's own recycling scheme since 1995, where members of EPS-branchen have taken used EPS transport packaging for recycling and reuse.
- Since 1995, the scheme has ensured recycling of approx. 18% of the transport packaging produced and up to 38% of the EPS transport packaging that has not been exported.(1) Unfortunately, the way the scheme is organised does not ensure optimal recycling of other types of used EPS.
- The used EPS packaging has either been granulated and recycled in production or compacted and sent for recycling.
- For every kilo of EPS recycled and reused, we have reduced CO2 emissions by over 5 kilos. As a result, we have reduced CO2 emissions by over 350,000 kilos per year on average since 1995.
- However, transport packaging does not form a significant part of EPS production. It consists of insulation and other packaging including EPS fish boxes, which are also recycled to a large extent.(2)
- Since 1995, there has been a significant increase in the number of municipalities that collect EPS for recycling. In 1995, no municipalities collected EPS, while in 2015 there were 8 municipalities. In 2018, the figure had risen to 17 and in January 2020, 30 municipalities were collecting, while 17 municipalities have announced that they were going to collect. Thus, EPS-branchen expects EPS to be collected in all municipalities by the end of 2021.(3)
- At the same time, EPS is increasingly being collected from the business sector through compaction and sale of the used EPS.

- This change in collection patterns makes EPS-branchen want to meet customer wishes while ensuring increased recycling and reuse of EPS.
- At the same time, from 2024, expanded producer responsibility for packaging will be implemented. It will be the customers who are covered by the scheme, and therefore EPS-branchen's solution must ensure that the customers' needs with regard to future legislation are supported as best as possible.

**Therefore, the scheme will be expanded and modernised from March 2020.**

- More specifically, used EPS should no longer be returned in the sacks of the organisation, but rather it must be arranged between the customer and the supplier as to how the EPS can be returned as best as possible. This ensures higher quality of the collected material.
- In addition, the scheme is being expanded so that future members of the organisation will also have the opportunity to receive used EPS other than just transport packaging.
- A member of the organisation makes individual agreements with the customer on how this is ensured in the best and most effective way.
- EPS-branchen also guides and assists the business sector in establishing effective EPS loops so that EPS is not only 100% recyclable, but we also ensure that it is 100% recycled. E.g. EPS-branchen has initiated cooperation with Northern Denmark Region's Netværk for Bæredygtig Erhvervsudvikling NordDanmark regarding increased recycling of EPS. (4)

**Sources:** (1) Own calculations based on reporting to the scheme. (2) See example, <https://eps-airpop.dk/2019/11/eps-fiskekassens-liv-fra-foedsel-til-grav-og-genopstandelse/> and <https://www.tvmidtvest.dk/artikel/laver-fiskekasser-om-til-genbrugsplastik> (3) EPS industry's count. (4) See example, <https://nben.dk/2019/02/nbe-og-eps-branchen-indleder-samarbejde> & <https://nben.dk/2019/07/foerste-moede-om-eps-loops-var-en-oejenaabner>

# About EPS - intelligent use of air

EPS is an abbreviation of the term Expanded Polystyrene. In Denmark, it is popularly known as "Flamingo".

EPS is both a thermoplastic and a cellular plastic that consists of 98% air. The rest is polystyrene, which encapsulates the air in a cellular structure. This allows the properties of the air to be utilised intelligently.

The cellular structure and high air content make EPS a light-weight material with exceptional insulation and shock absorbing properties. It has a high compressive strength, repels humidity and is easy to handle.

EPS plays an important role in our daily lives; as a protective packaging for fragile articles and food during transport; as insulating material in buildings; and in protective equipment

such as bicycle helmets.

After use, EPS is 100% recyclable. It reduces CO2 emissions in production of raw materials by 1.8 kg per every new kg of EPS raw material. In addition, incineration, which emits over 3.3 kg of CO2 per kg of EPS is avoided.

EPS is a valuable resource with unique properties. When EPS is used properly, it provides a significant contribution to addressing current and future challenges of society.

According to the Ministry of Environment and Food of Denmark, **there are no "environmentally better alternatives" available** for all the uses of EPS.

See more at [www.eps-airpop.dk](http://www.eps-airpop.dk)



100% recyclable



Low weight



Durable



Resists mould and vapour



High insulation value



Shock absorbant



Versatile. Can be moulded in almost any shape



Cost effective



No additives

**About EPS-branchen - the Danish EPS Association.** EPS-branchen is part of the Danish Plastics Federation. The organisation represents the EPS manufacturing companies and the rest of the value chain, including recycling companies, machine manufacturers, educational institutions, consultancies, construction companies, manufacturers of EPS concrete and local tradesmen.

The organisation's 15 factories are spread throughout Denmark and have approx. 500 employees and over 100 local tradesmen, e.g. blacksmiths, electricians and toolmakers.

Other companies in the organisation have over 500 employees. The Danish production of EPS supports over 1,000 jobs in e-commerce, e.g. food boxes. It is used as packaging for a large number of export companies and as insulation in construction. In addition, EPS boxes are among the preferred solutions when exporting Danish fish globally. Thus, the industry supports an export exceeding DKK 26 billion and approx. 16,000 jobs.

Overall, Danish production of EPS supports over 30,000 jobs with a turnover of well over DKK 50 billion.

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