

Food Regulatory Experts Panel

News #2



FREPnews is a rubrique which is published every two months. Focusing on Food Contact Materials and Plastics Packaging for Food, *FREPnews* is directed to not only experts in the field but also public at large.

Frepnews' main goal is to increase the literacy among people about these topics by sharing relevant and easily understandable information. *FREPnews* comes in addition to the brochure "The reasons of Plastics in Food Packaging".

Why PLASTICS as FOOD CONTACT MATERIAL?

For centuries, packaging used naturally available resources like sand, clay, metallic minerals, wood, etc.; to create any of the 3 types of packaging (see previous edition for more information).



All These materials impact the environment in various ways while producing either quickly decaying containers or breakable packaging (ceramic and glass), difficult to impossible to recover to make a new container.



Observation and understanding of naturally occurring polymers like rubbers lead to **the discovery of polymers, opening new possibilities** to design packaging and services for society **based on plastics**.



Plastics as Food Contact Materials: Why Do We Use Them?

When it comes to food packaging and containers, one wants to be sure that the material chosen is safe, reliable, and long-lasting. For this reason, plastics are an ideal choice as food contact materials.

Plastic Food Contact Materials play a crucial role in preserving food from contaminants and preventing food waste

Polymers and plastics used in packaging for food and beverages may offer additional services: atmosphere control, sealing, vacuum resistance, etc.; each of them **focusing on slowing down the decay of the content**, increasing the shelf lifetime and the after-buy lifetime as well.

SERVICES TO SOCIETY

In addition to protecting and handling products, plastic packaging offers a wide range of benefits to society. These include:

- Improving **mechanical resistance to container weight ratio**: Plastic packaging can provide superior strength and durability compared to other materials, while remaining lightweight.
- Slimming the material far below other materials: Plastics can be used in **thinner layers than other materials**, while still providing excellent protection to the product.
- **Flexibility**: Plastics can be molded into a wide range of shapes and sizes, making them versatile for a variety of applications.
- **Foaming**: Plastic packaging can be designed with foam components that help reduce the impact of shocks during transportation, or improve atmosphere control around the content.
- **Shape changers**: Innovative plastic packaging solutions allow for the transportation of pre-forms instead of the final bottle, or can adapt the shape of the container to better suit the contents.
- **Thermal seal**: Plastics can provide an effective thermal seal, without impacting the contents of the package.
- **Sterility and atmosphere control**: Plastic packaging can help maintain sterility and control the atmosphere around the product, which can prevent early decay or the need for preservatives.
- **Substitution for materials under resource stress**: Plastics can be used as a sustainable substitute for other materials that are under resource stress, helping to reduce waste and conserve resources.

Each new service delivers a substantial environmental gain while using less material by adapting to the content to extend its lifetime expectancy.



Shatterproof - doesn't break into dangerous shards when dropped. Particularly useful for products handled by children. used in the shower or in public venues.



Hygienic - this makes it ideal for packaging food, medicines and pharmaceuticals.



Secure - perfect for tamper-evident and child-resistant items.



Durable - this keeps the contents of the packaging dry and protected on their way to the consumer.



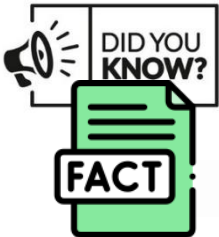
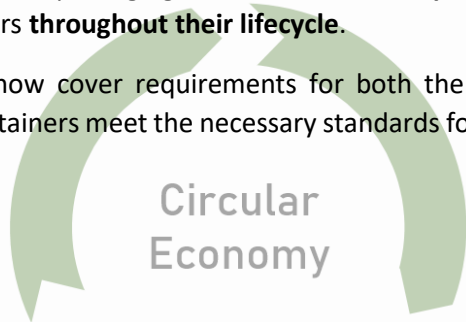
Lightweight - easy to lift and carry.

FOR A CIRCULAR ECONOMY: LEGISLATION & CONCERNS

The versatility of polymer types allows to choose the best polymers and related plastics for the right services, depending on the specific properties of the content and the future use, including the duration of use.

The **provisions for plastics have been extended** from the packaging stage to include the entire production process and the use of packaging. **This includes the implementation of circular practices** that add value to the containers **throughout their lifecycle**.

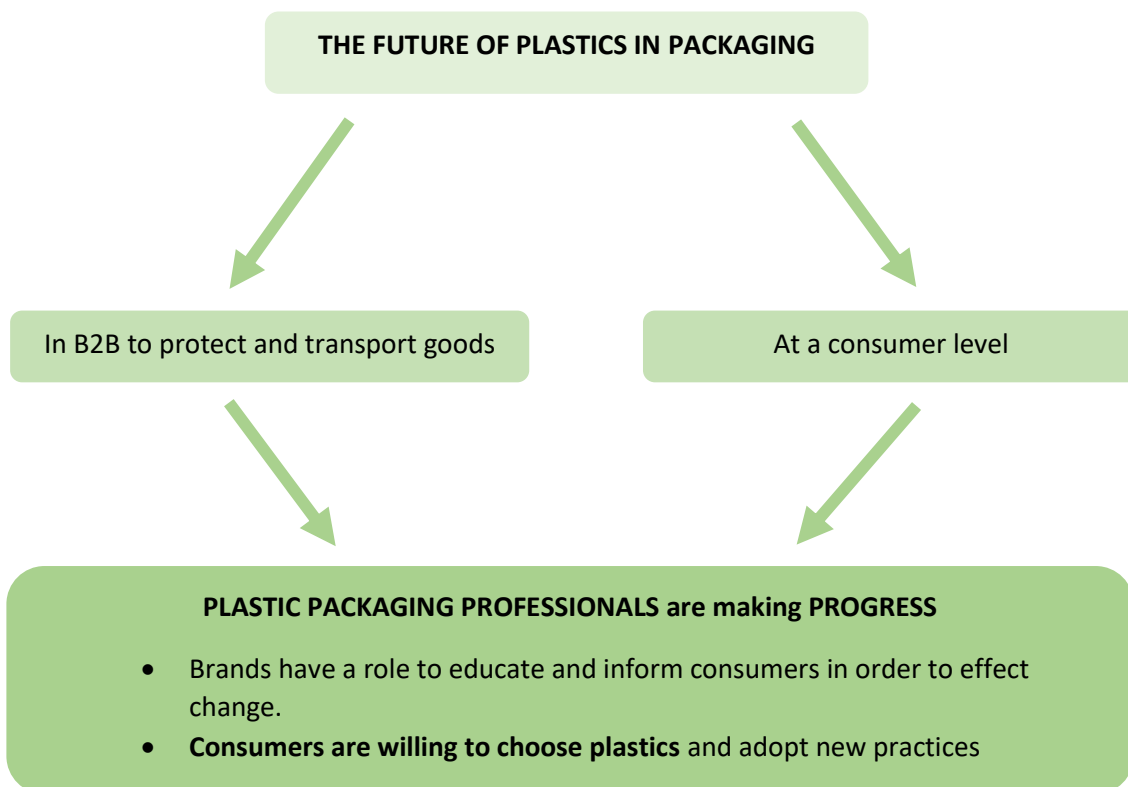
As a result, the regulations now cover requirements for both the **thickness and recyclability of plastics**, ensuring that the containers meet the necessary standards for the services they are intended to provide.



Plastic packaging has a key role to play in the circular economy!

They are **Recyclable**, they can be adapted to all new types of use and therefore still be useful.

Being lightweight, it reduces the carbon footprint of products.



Is plastic packaging SAFE?



When it comes to food contact materials, **safety is the most important factor. Fortunately, plastics are an extremely safe choice.**

The European Commission has established rigorous safety standards for plastics that are used in food contact materials. These standards include **limits on levels of chemicals that can be present in plastics**, as well as **restrictions on the type of additives that can be used in production.** In addition, the European Food Safety Authority (EFSA) regularly reviews new scientific evidence to ensure that all plastics used in food contact materials are safe.

The strong apparent focus on plastic is the result of a regulatory delegation by the EU member states to the European Commission, while other materials are mainly regulated at EU national levels.



All packaging materials present, at some level, the migration of substances into food. In the case of plastics, **these are rigorously tested to make sure that migration, if any, is SAFE.**

Testing conditions are specified legally, and need to be used by all actors performing in the value chain. **The tests are done at several stages in the value chain to ensure that the plastic sample is suitable for its end-use.**

Plastics are the most regulated packaging material available, giving assurance about their safe use.

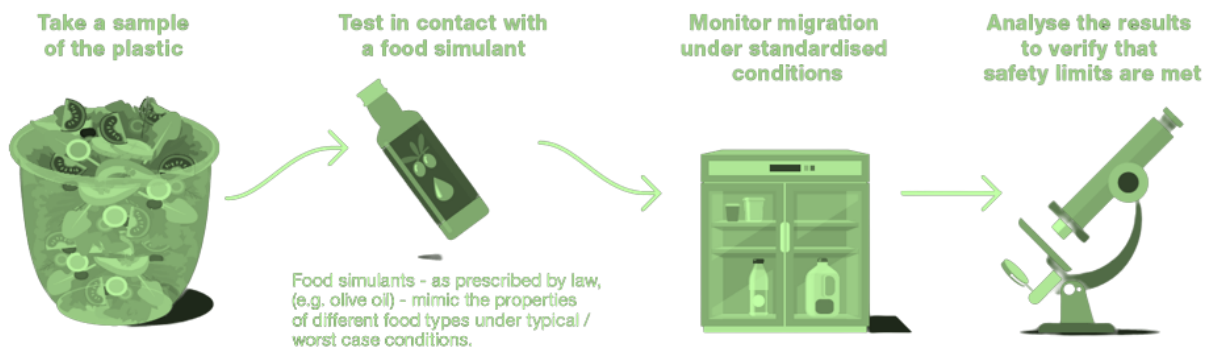
Plastics are used in many types of food packaging and containers for a variety of reasons: they help **protect food from damage, provides food safety, and extend the freshness of foods.**



Molds, bacteria, and viruses do not grow on plastic surfaces and do not permeate through them.

To achieve safe contact, several other materials are using one of the plastic solutions from the whole family of polymers: blend in the bulk, laminated film, surface coating, or thin coating like polymeric varnishes, etc.

TEST PHASES



The tests enable us to determine if plastic packaging can be used for given food and the conditions of use.

They are performed in such a way as to simulate extreme conditions, ensuring a safety margin beyond typical usage.



At all stages of the value chain, materials are produced in a controlled, safe, and consistent way. All of the different parties involved are requested to issue a declaration of compliance on product safety.



In addition to national food authorities, **three EU agencies** are dealing with this:

- the **European Food Safety Agency (EFSA)** performs a risk assessment of the substance to ensure a high level of human health protection
- the European Commission's **Joint Research Centre (JRC)**; and
- the **European Chemicals Agency (ECHA)**

FOR A CIRCULAR ECONOMY: LEGISLATION & CONCERNS

Plastic packaging is going green and complies with strict hygiene standards to protect users' health.

They are updated regularly to reflect the latest solutions for a circular economy and meet changing consumer habits.

SAVE THE DATE

European Food Contact Plastics Seminar

15 June 2023
Martin's Brussels EU Hotel



Organised by  Polymer Comply Europe on behalf of  EuPC

The **Food Contact Regulatory Experts Panel (FREP)** and **Polymer Comply Europe (PCE)** are pleased to announce its upcoming **European Food Contact Plastics Seminar**, organised on behalf of **European Plastics Converters (EuPC)**.

The seminar will take place on 15 June 2023 in the Martin's Brussels EU Hotel, from 9.00 CET.

It will focus on how to ensure the sustainability of food contact plastic materials and articles, whilst maintaining their safety for consumers. This seminar will identify the key challenges and opportunities for the food and drink industry, such as how it can contribute to the EU sustainability objectives and meet their legal obligations in terms of consumer safety. The discussion will gather experts from the industry, research institutes, European and national authorities.

Registration is required. For more information about the agenda and booking your tickets, [please click here.](#)

For any request, please contact federico.gorini@pceu.eu

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