



The reCIRCLE material

Why plastic?

We have spent a long time considering the material of our reusable containers. There is no such thing as the perfect material, and yet the material chosen is decisive for the ecological and economic success of a reusable system. We asked our different target groups what they expect from reusable packaging:

Our **restaurants** want something stackable, quick-closing and unbreakable.

It's important to **guests** that it's leak-proof, dishwasher- and microwave-safe - and affordable.

From a **hygienic** point of view, we need a container that can be washed and dried easily and cleanly, and that is ventilated when stacked so that moisture cannot accumulate.

For our **environment** and the **logistical** processes, our products need to be durable and unbreakable.

Cities and municipalities want a vessel that cannot pose a risk of injury.

We analyzed and tested the following materials:

Glass breaks quickly and tempered glass is not recyclable. It stacks poorly, gets so hot that it cannot be touched, and the temperature difference can cause a vacuum to form.

Aluminium and **chrome steel** are not microwaveable. That alone is a killer criterion. They conduct heat, which is why they would have to be double-walled and that entails high costs, which is not accepted by the clientele. Also, it is difficult to develop tightly sealed containers, clips or silicone rims are not hygienic, germs and bacteria can hide underneath.

Compostable materials are not machine washable and not durable. Unfortunately, this includes wood. Making bioplastics from food does not make sense. Plastics made from renewable resources (palm leaves, bamboo or potato peels) also have additives and are therefore no healthier than traditional plastic. Biodegradable is not compostable: bioplastics are often thrown into the compost, which destroys the whole collection: currently, bioplastics in everyday use are more a problem than a solution.



Our material

The reCIRCLE BOX is made of polybutylene terephthalate, or PBT for short. To make them specially hydrolysis-resistant and fast drying, we add 30% glass fibres. The reCIRCLE BOXes are therefore only 70% plastic. PBT has been on the market for a very long time and has established itself as a safe and proven material. No harmful phthalate is added to our products, so the reCIRCLE BOXes are free of plasticizers. BPA, which is under suspicion, has been completely removed and we have even been able to remove all animal fats: reCIRCLE BOXes are therefore made vegan. Even the colour pigments used are food grade.

Plastic is often demonized today, which makes sense in part, as plastic is often disposed of incorrectly or is added to various products (shampoo, for example). But single-use plastic is not the same as reusable plastic.

PBT and PP (lids) can be recycled. However, there are no official collection routes and no official recycling procedure. Together with our producer, Stefan Kälin AG, we can regranulate the reCIRCLE BOXes, i.e. shred them, and thus produce new granulate for reuse.

Unfortunately, we cannot currently use this granulate for new reCIRCLE BOXes for legal reasons. We want to change this and are in contact with the responsible authorities, so that old reCIRCLE BOXes will soon become new reCIRCLE BOXes.

Do you have further questions? Please get in touch. We are happy to help.

Call us at +41 31 352 82 82, write an e-mail to international@recircle.ch or visit us online [recircle.eu](https://www.recircle.eu).

