

CSE-Criteria for Packaging

Valid for all packaging to be purchased from 01.01.2024 and biocides to be registered for approval.

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REQUIREMENTS

Natural products in environmentally harmful packaging do not go together. Especially not if the packaging gives a green impression even though it interferes with the recycling process or is even non-recyclable. The standard sets its criteria against such greenwashing packaging:

In principle, when using packaging materials and packaging materials, care should be taken to ensure that the packaging task can be fulfilled with the lowest possible overall impact (economic, social, ecological).

The impact is always to be determined across the entire value chain (raw material production, processing, logistics, use, end of life, reprocessing and new raw material use).

Packaging is used according to the following order of priority:

1st priority Avoid: As little as possible. Is the packaging indispensable?

2nd Priority Reduce: Packaging that is necessary should use as little material as possible. Can the packaging material be reduced e.g. by refill possibilities?

3rd priority Reuse: Prefer reusable to disposable packaging. This means that before disposable packaging made of recycle is designed, it should be clarified whether a reusable system, regardless of its design, would not be possible.

4. priority recyclability: recyclability of packaging and packaging materials, which is required by the EU and in Germany. This is not about a theoretical recyclability of materials, but about the recyclability of a complete packaging material (incl. closure and labels) in the existing recyclable material streams. In other words, the packaging / packaging materials must be marked in such a way that the consumer assigns them to the correct material stream. Furthermore, packaging and packaging materials must be automatically

recognizable and sortable (NIR technology for sorting recyclable materials). In addition, it must be possible to process them in the existing material streams and convert them back to raw material / packaging material to an economical degree.

5. priority dischargeability: residual dischargeability of the packaging. In order not to disturb the sorting and recycling process, the packaging must be easy to empty.

The materials listed in the appendix, which are marked **green**, may be used.

All **orange** and **red** marked materials are interfering materials for the recycling process.

The **orange** marked materials are tolerated, but are currently not recommended by the standard setter.

The materials marked in **red** may not be used.

Since the technical possibilities of the recycling industry are subject to immense change, the material list is reviewed every 2 years by the standard setter to ensure that it is up to date and, if necessary, adapted.

In addition, the following minimum requirements apply to materials:

Paper packaging:

Fully recycled paper materials shall be preferred to virgin paper. The recycled content of paper packaging is at least 50%.

Raw paper materials shall come from either FSC or PEFC sources.

Paper must not be bleached with chlorine or chlorine derivatives. Only TCF is allowed.

In particular, wet strength agents, greaseproofing agents and finishes based on PFC are not allowed. Coatings and laminations shall generally not be used on paper materials.

Wood-based packaging:

The wood shall be from FSC or PEFC sources. Packaging must be constructed in such a way that separation of different materials is possible.

Plastic-based packaging:

No multilayer PP/PE or PET/PE structures. No different plastics on front and back. Printing inks suitable for recycling (minimum standard : EuPIA compliant printing inks). If labels or sleeves made of foreign materials are used, they are smaller than 50% of the packaging surface (see minimum standard NIR interfering materials).

No PETG sleeves or components in PET bottles.

No cellulose-based labels in tight contact with polyolefin packaging.

No silicone components.

Adhesives:

Only REACH compliant adhesives may be used.

EXPLANATION OF THE CRITERIA AND RECOMMENDATION FOR ACTION

Section 21 of the Packaging Act provides for the implementation of financial incentives for the use of recyclable packaging. No recyclability will result in a payment from the distributors, but the use of at least 90% recyclable packaging provides for a refund.

The standard setter therefore recommends, from both a financial and environmental perspective, not only adhering to the minimum requirements in this standard, but following the recommendations.

Particularly in the case of fibrous materials, it is often assumed that these are naturally recyclable. However, this can already be undermined by the wrong or too thick varnish, by hotmelts in folding cartons or by coatings and finishes. The PTS-RH 021 97 standard provides information on the recyclability of fibrous materials. In the case of fibrous materials, the origin should also be checked, since approximately half of the cellulose comes from Latin America and from eucalyptus monocultures. In order not to support this trend, it is important not only to see the certificate number of the producing company in the FSC supply chain tracking, but also to list the numbers of the incoming raw materials.

The recyclability of composite materials, plastics, glass and metal packaging is confirmed by companies such as HTP-cylcos, Interseroh or Clover. The EU is working to build a Circular Economy, so it makes sense to use as much recyclate, scrap or cullet in packaging as possible. The use of recyclate, for example in the fiber sector, also ensures that raw materials come from domestic collections rather than sources from other continents.

DEFINITION

Composite packaging: Packaging consisting of different types of material that cannot be separated manually, none of which exceeds a mass proportion of 95% of the total packaging.

Foreign materials: Material composition other than that of the basic packaging - e.g. sleeves or labels.

Impurities: Substances that interfere with or prevent the recycling process according to the current state of the art.

NIR: Near Infrared. NIR (near infrared) refers to a spectrum in a range between 760 and 2,500 nm that is not visible to humans. In this wavelength range, material-typical patterns based on molecular vibrations can be detected after excitation with light. This technology is used for sorting packaging.

Recyclability: Recyclability is the individual gradual suitability of a packaging or a product to actually substitute material-identical virgin material in the post-use phase; "actually" here means

material-identical virgin material in the post-use phase; "actual" in this context means that collection and industrial scale are a prerequisite.

Recycled content: Percentage of raw materials recycled in relation to total raw materials.