

CHIRA 1.1: Functional enhancements and adaptation to the German minimum standard 2022

First update of the awarded software tool for the assessment of recyclability

Aachen, 16 November 2022. CHIRA - **CHI R**ecyclability **A**ssessment has been generally available since July this year. The software is a tool for the differentiated assessment of recyclability and at the same time a multifunctional tool for ecological packaging optimisation, recently awarded the German Packaging Award 2022 in the digitalisation category and the Gold Award. Users can use the tool to determine the recyclability of their packaging based on the proven examination and certification basis of the CHI catalogue and receive a highly accurate and reliable result. CHIRA 1.0 considers the state of the art as well as the current state of technology of the recycling infrastructure in up to 27 EU countries as well as Norway, Switzerland, and the United Kingdom.

CHIRA is constantly updated by the development team to reflect the latest research and technical innovation as well as legal requirements. The introduction of new recycling processes, the expansion of collection and recycling infrastructure in individual countries, research results on new materials and findings on the recycling (in)compatibility of material combinations are implemented as part of regular updates; the first amendments are included in the recently published update CHIRA 1.1.

Minimum Standards for the Assessment of the Recyclability of Packaging 2022

The amendments to the Minimum Standard for the Assessment of the Recyclability of Packaging -Edition 2022 are largely implemented in CHIRA 1.1. The programme refers to the in-depth testing requirement for fibre-based packaging for liquid or pasty contents and the testing requirement for polymeric thermoplastic dispersion coatings. When calculating the fibre yield, the fibre content that passes into the aqueous phase (water-soluble, colloidally dissolved or finely dispersed) is also included.

For glass packaging, the update takes into account the total loss of glass content in demijohns and also considers recycling incompatibilities of borosilicate glass and ceramic components as well as metal nets. According to the minimum standard 2022 the loss of the glass portion covered by waterproof/hydrophobic plastic adhesive labels is calculated.

The following changes have been made with regard to plastic-based packaging: In addition to the PS content, the rigid PE and PP content of PS packaging is now also counted as a valuable material and NIR measurement is now also required for the packaging type nets. The PA exception formulation of Annex 3 must currently be activated manually by the user via the menu item measurement data input. An automated consideration will take place soon with the next update.

Functional enhancements

With CHIRA version 1.1, different plastic types can now be entered in an even more differentiated way. For example, recyclates can also be selected as a material type, so that an automatic calculation of the recyclate content for plastic-based packaging could be integrated.

In addition, CHIRA was expanded by the calculation of the aggregated recyclability for combination packaging.

Furthermore, the so-called format criterion was added to CHIRA 1.1. Through the user-friendly query of the packaging dimension, restrictions with regard to the packaging size can be evaluated on a country-specific basis.

For beverage cartons, CHIRA version 1.1 now calculates a differentiated result with and without PolyAl recycling.

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