

Overview

CHIR

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1. The Institute cyclos-HTP (CHI)

The Institute cyclos-HTP (CHI) with its headquarters in Aachen was founded in May 2014 as a company for the

classification, evaluation and audit of recyclability for packaging and goods,





CHI, was the first **expert organisation** to elaborate and implement a **fully transparent assessment procedure** for packaging – based on scientific principles as well as hands-on experiences in recycling operations.



2. Program Overview

CHIRA is THE SOFTWARE SOLUTION from the HTP engineers and the experts of the Institute cyclos-HTP (CHI) for the differentiated assessment of recyclability and was developed as a multifunctional tool for ecological packaging optimisation.

What characterises CHIRA?

CHIRA is based on the current version of the CHI Recyclability Assessment, a proven examination and certification basis. The CHI assessment and the CHIRA IT tool have the following characteristics:

- First evaluation standard for the assessment of recyclability (publication 2011)
- Development and continuation based on scientific and practical primary knowledge of leading recycling experts
- Neutral and independent expert assessment (by publicly appointed and sworn experts)
- Assessment method: transparent quantitative assessment of recyclability / no ordinal assessment system
- Conformity with EN 13430 and EN ISO 14021
- Conformity to the German minimum standard
- Recognised, established industry standard

(industrial companies, international brand manufacturers, packaging manufacturers, packaging material manufacturers, retailers and discounters use the CHI standard for differentiated status determination as well as packaging development and optimisation)

- Scope: EU, NO, CH, UK in country-specific differentiation
- Area of application: Packaging of all material types
- Continuous adjustment to the latest knowledge and technical innovations

What does CHIRA include?

In addition to the calculation of recyclability, CHIRA provides a differentiated assessment result for the 9 standard criteria of the CHI assessment catalogue as well as a report with comments that can be freely edited by the user; determination of the recyclable material content, NIR simulation, automatic density calculation and much more are implemented in CHIRA. All CHIRA predictions for the individual criteria can be overwritten by measured values.

2. Program Overview



Recyclability of the assortment packaging completely in view

CHIRA is equipped with intelligent query menus for individual packaging types that enable the user to create assortment packaging in a short time. In the CHIRA packaging archive, even extensive assortments can thus be fully documented, sorted and managed by article number. The option of exporting data from the archives enables further processing and data use in tabular calculations or databases, e.g. for periodic tracking of your sustainability targets.

Differentiated individual packaging optimisation using CHIRA

Last but not least, CHIRA is also designed as an instrument for ecological packaging optimisation. After specifying the current packaging design, design details such as colouring, labelling, closures, adhesives, fillers, etc. can be varied in CHIRA in order to determine the changed recyclability with just a few clicks thanks to the implemented copy function. An interesting usage variant not only for packaging developers!

Continuous updating of the assessment and planned functional extensions

CHIRA is constantly updated by the development team to keep up with the latest research and technical innovation and regulatory requirements. The introduction of new recycling processes, the expansion of collection and recycling infrastructures in individual nation states, research results on new materials and findings on the recycling compatibility or incompatibility of material combinations are implemented as part of regular updates. In addition, it is planned to further develop CHIRA functionally: A component library, guidelines check and a module for CO₂ footprint calculation have already been initiated as development projects.



3.1 Start Menu

CHIRA





3. Introduction to CHIRA 3.2 Create Packaging | Master Data

CHIR.

CHI Recyclability Assessmer

@ CHIRA 1.0.0		>
Packaging: Tube (Test)		☆@\$
	Company * Institut cyclos-HTP Editor * Max Mustermann	
	Packaging name * Tube (Test) Packaging article number *	
English ~ Start menu	123456 Product article number	
Master data Path allocation Packaging components Structure/design	GTIN Recyclate share	
Basic composition data Composition Measurement data input	Description	Certificate archiving
Summary of results Reporting/Export	Picture files BeispielbildTube.jpg Documents	O Recyclability (CHIRA) %
	Comment on the selected document	
	* Mandatory fields	
	Back	Next

Every Recyclability Assessment begins with the entry of basic packaging-specific information, the so-called **Master data**. The information entered here forms the basis for fully documenting even extensive assortments by article number and for organising and managing them in the packaging archive. In addition, the user has the option of importing packaging-related files, such as photos and laboratory reports, and thus linking them to the data set.



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3. Introduction to CHIRA

CHIRA

3.3 Create Packaging | Master Data - Create Certificate & Certificate Archive

🕢 CHIRA 1.0.0					- 🗆 X	In	addition	a ta data	such as	filos	a photos
Packaging: Tube (Test)			@ @ 2 □		∄₩⊠⊡©;	re	ports, e	xisting cer	tificates	can al	.g. priotos so be con
CHI Recyclability Assessment	Packaging name * Tube (Test) Certificate number 1234-2022-56789 Type * Single certificate Recyclability (Certificate	S) ~] ✓] ✓			pa ma be Th fri In Ex ce pa	ckaging aterial fl saved h e certifi endly ma addition piring ar rtificate ge.	data set. ow classific ere. cate archiv anagement anagement the certific ad expired archive an	All rele ation, val e with re of all exi icate arch certificate d displaye	vant in lidity so minder isting co nive can es are h ed as a	formation cope and ex function is ertificates st be exporten highlighted is note on t
Path allocation Packaging components Structure/design Basic composition data Composition Measurement data input Summary of results Reporting/Export	Material flow * Polyethylene Regional assignment AT, BE, DE, (FR), (Expiration date * Freitag, 30. Juni 2	T), NL, NO, PT, UK	▼ ✓ ✓					2 , 2 , 000			ertificate archive
	* Mandatory fields		Filter: Certific	ate number	Filter: GTIN		Alle	Single certific	ates	Group c Unassigne	ertificates
		CHI Recyclability Assessment		ging name		Q		Soon expiring cer	tificates	Expired	certificates
			Certificate number	ype Expiration date	Packaging name	Packaging code	Product code	GTIN	Regional scope	Recyclabil (certificate	it Assigned) material path
			1234-2022-567S	06/30/23	Tube (Test)	123456			AT, BE, DE, (FR), (IT), NL, NO, PT, UK	34%	Polyethylene
	Back Unassi	g English	2079-2022-003 S	05/22/22	Zahncreme-Tube	4324326			Länder	92%	Polyethylene
		Start menu	1234-2022-00: S	05/20/22	TestVerpackung1, TestVerpackung1 [reduzierter	TV1, TV1 neu			DE	87%	Polyethylene

g. photos and laboratory o be connected to the formation - recyclability, ope and expiry date - can function is used for user-

ertificates stored in CHIRA. be exported as a CSV file. ighlighted in colour in the note on the CHIRA start



<u>3. Introduction to CHIRA</u>

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<u>3.4 Create Packaging | Path Allocation</u>

@ CHIRA 1.0.0		-	
Packaging: Tube (Test)			1 🔅
CHI Recyclability Assessment	Material (in general) Plastic Type of packaging Tube	 	
	Material Main component (specific)		
inglish ~	PE	\checkmark	S V
tart menu	with component or layer made of aluminium		AU
Aaster data	no	∨ ✓	PA E
ach allocation			XA P
tructure/design			1 AVAG
asic composition data			<
omposition			
/leasurement data input			
ummary of results			
eporting/Export			
	Back	Next	t

CHIRA's application range covers all material types as the only IT tool available:

- Plastic
- Paper, cardboard
- Liquid packaging board
- Aluminium
- Timplate
- Glass
- Other (Wood, Ceramics, etc.)

The menu point **Path allocation** is used to determine which recycling path is to be taken into account for the packaging. Currently, a distinction is made between 14 recycling paths. The superordinate criterion for the classification of products, according to their recyclability, is the availability of an applicable collection and processing structure. The individual criteria for assessing recyclability are based on the path-specific reference processes.

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<u>3. Introduction to CHIRA</u>

CHIRA

CHI Recyclability Assessmen

3.5 Create Packaging | Packaging Components

🞯 CHIRA 1.0.0				– 🗆 X
Packaging: Tube (Test)		<u>A</u> 🗟		』፼େ⊡ŵご
CHI Recyclability Assessment	Packaging component < 1 2 3 Closure/Cap Material group Plastic		€⊖ ∕ ∕	May
English ~	Manual separability No Mass in [g] 3.200	\ \		
Start menu Master data Path allocation Packaging components				
Structure/design Basic composition data Composition Measurement data input				< >
Summary of results Reporting/Export				
	Back			Next

In the menu point **Packaging components**, the individual components of a packaging can be added. The selection of the packaging components is already specifically adapted to the packaging type.

In the example of the tube, the components listed here can be selected. In addition, further components can be added as desired via others.

Packaging component	_
< 1 2	>
	-
	1
r Label 1	
- Label 2	
- Label 3	
- Pump head	
- Shoulder with spout	
- Shoulder without spout	
-Sponge carrier	
- Sealing film/plate	
- Spout	
- Overcap	
- Closure/Cap	
🖻 Other 1	
[new]	
🖻 Other 2	
[new]	
🖻 Other 3	
[new]	



3.6 Create Packaging | Structure/Design

CHIRA

CHI Recyclability Assessme

@ CHIRA 1.0.0	- 🗆 X
Packaging: Tube (Test)	合 📾 🗟 🎹 🖽 🗎 🖾 🖽 🖓 💱
CHI Recyclability Assessment	Packaging component <
	Structure
English ~	HDPE V
Start menu Master data	Lime, Chalk / Titanium dioxide (> 3 %)
Path allocation Packaging components	without
Structure/design Basic composition data	Tie layer (PE based, non-specific)
Measurement data input Summary of results	White
Reporting/Export	Direct printing, varnishing and embossing
	Back

The components created are specified in the menu point **Structure/Design**. The intelligent query menus for individual packaging types with which the CHIRA tool is equipped enable the user to set up packaging in a short time.



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CHIR_

3.7 Create Packaging | Structure/Design - Colour Selection

🔞 CHIRA 1.0.0					- 🗆 X
Packaging: Tube (Test)			<u> </u>		2⊡₿53
CHI Recyclability Assessment	1 2 3 4 5 6 7 7 8 9 10 11 12 12	Black Anthracite dark grev Grev Light grev White neon blue dark blue (night blue) Blue Light blue Cyan Turquoise (dark)			
Start menu Master data Path allocation Packaging components Structure/design Basic composition data Composition Measurement data input Summary of results Reporting/Export	14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Turquoise (light) Dark green Green Light green Olive green (lime) Olive green (light) Magenta Purple (dark) Purple (light) Bordeaux (wine red) dark red Red (neon red) Bright red dark orange Orange Light vellow Yellow (neon vellow) Light brown Brown Light brown without colour pigments			
<		Are carbon black, metal or metal effec	t pigments used?	Yes No	Unknown

In addition, the material colour of the packaging is queried and it is checked whether carbon black, metal or metal effect pigments are contained in order to take into account the influence on sortability and to fully specify the packaging.

Example: Black plastic bottle with carbon black based masterbatch Sensor-based sorting based on the principle of NIR spectrometric reflectance measurement is an elementary process step in the reprocessing of mainly lightweight packaging (LWP, "yellow bag/bin"). The measured spectra per pixel are compared with stored reference spectra.

The classification image (below) shows that the bottle body is not identified due to the carbon black-based masterbatch.

Intensity image

Classification image







3. Introduction to CHIRA

CHIRA

3.8 Create Packaging | Structure/Design - Packaging Geometry

CHIRA 1.0.0 Packaging: Becher (Test)		^ 6 2	-	If the format of the packag the packaging can also b	ing is also relevant, the geone selected under the m	ometry of enu item
CHIRA	Packaging component	>		Structure/design . The example selection of the packaging g	nple of a cup is shown her eometry.	re for the
CHI Recyclability Assessment						
	Structure	> 🕀	Packaging type: Cup Type A	Туре В	Type C	
	Layer PP	~ ~				
nglish ~	Fillers, mineral additives and absorbers	· · ·				
laster data	Additive and other barriers	~ ~				
ath allocation ackaging components	without	~ 🗸		/	<u> </u>	
tructure/design	Material colour White					
composition		•	Description	Description Rectangular cross section	Description	
Aeasurement data input ummary of results	Direct printing, varnishing and embossing		Circular cross section High body	High body	Square cross section High body	
eporting/Export	Coverage printing/embossing	•	Time D		Ture F	
	(i) 70 < x ≤ 90 %	~ 🗸	туре в			
	Filling volume [ml] 200	~		Description		Description
	Packaging geometry			Cross section: Any type Flat/Low body	В	Body: Cubic
	Type A	<u>୍</u> ଆ				
	Туре В					
	Туре D					
	Туре Е					
	Back		Next			
						10



CHIR

3.9 Create Packaging | Basic Composition Data

@ CHIRA 1.0.0							-	
Packaging: Tube (Test)				ā I.) (j) (j) (j)
	Selection of the packaging com	ponent		>		(j)	Total mass 8.700 g -8.700 g]
	Designation	Material	Layer	Thickness [um]	Density [a/cm ³]	Grammage	Mass [g]	Filler content
	Direct printing, varnishing and e	Lacquering	0	2.5	1.000	2.5		[10]
	Layer	PE HDPE	1		0.955			
	Fillers, mineral additives and ab	Lime, Chalk	1		2.730			
English ~	Fillers, mineral additives and ab	Titanium dioxide (> 3 %)	1		4.240			
Start menu	Tie layer, Adhesive application to	Tie layer (PE based) Tie layer (PE based, non	1	2.5	0.925	2.3		
Master data	Layer	EVOH	2		1.190			
Path allocation	Tie layer, Adhesive application to	Tie layer (PE based) Tie layer (PE based, non	2	2.5	0.925	2.3		
Packaging components	Layer	PE LDPE	3		0.925			
Basic composition data Composition Measurement data input Summary of results Reporting/Export								
	Back	Reset to default values					Next	

The material composition of the individual packaging components is specified in the menu item **Basic composition** data.

CHIRA has an extensive material database. The standard values stored in the material database are shown in blue, user entries are shown in black and the entries required to determine the results are indicated by the fields with a red background. The data can be entered either via layer thicknesses or basis weights or via the masses.



CHIRA

3.10 Create Packaging | Composition

CHIRA 1.0.0									-	
Packaging: Tube (Test)				1	介圖	ŝ, III				I 🔅 ∑ 🕻
	Composition									
	Packaging component	Material	Layer No.	Filler content [%]	Thickness [µm]	Density [g/cm³]	Grammage [g/m²]	Mass [g]	Mass percentage [%]	Total mass percentage [%]
	Laminate tube/body	Lacquering		-	2.5	1.000	2.5	0.211	2.4	1.6
		HDPE	1	-	80.0	0.955	76.4	4.845	55.7	37.0
- Pak	1	Lime, Chalk	1	20.0	-	2.730	-	1.292	14.8	9.9
inglisn 🕚		Titanium dioxide (> 3 %)	1	5.0	-	4.240	-	0.323	3.7	2.5
Start menu		Tie layer (PE based, non-specific)	1	-	2.5	0.925	2.3	0.194	2.2	1.5
viaster data		EVOH	2	-	7.0	1.190	8.3	0.702	8.1	5.4
Packaging components		Tie layer (PE based, non-specific)	2	-	2.5	0.925	2.3	0.194	2.2	1.5
Structure/design		LDPE	3	-	12.0	0.925	11.1	0.938	10.8	7.2
Basic composition data		Subtotal		-	106.5	1.107	102.9	8.700	100.0	66.4
Composition	Shoulder without spout	PE (non-specific)	1	-	-	0.943	-	1.200	100.0	9.2
Summary of results		Subtotal		-	-	0.943	-	1.200	100.0	9.2
Reporting/Export	Closure/Cap	HDPE		-	-	0.955	-	3.200	100.0	24.4
		Subtotal		-	-	0.955	-	3.200	100.0	24.4
	-	Total sum		-	-	-	-	13.100	-	100.0
	Back								Next	

In the menu point **Composition**, the material composition is displayed as a tabular overview. All previously entered specifications of the packaging are listed.

The calculated mixing density of multilayer components and calculated mass shares of the packaging and its components are also displayed.



3. Introduction to CHIRA 3.11 Create Packaging | Measurement Data Input

			\sim	%	Û
				,,,	U
25: Density determination					
Packaging component	Material	Comment	Density [g/cm ³]	Measured value	(i)
Laminate tube/body	Total multi layer		1.110		Ŭ
and set in the set of					
Residue at the melt filt	er in percent			%	í
Residue at the melt filt	er in percent			%	(i)
27: FIITRATION IOSSES Residue at the melt filt 28: Compatibility tests Packaging component	er in percent Designation	Material		%	ن آ
2/: Filtration losses Residue at the melt filt 28: Compatibility tests Packaging component Bottle	er in percent Designation Additive and other barriers	Material PA Additivation		Compatibility	() ()
27: Filtration Iosses Residue at the melt filt 28: Compatibility tests Packaging component Bottle	er in percent Designation Additive and other barriers	Material PA Additivation		Compatibility	() ()



The prognosis of individual criteria in CHIRA can be specified path-specifically in the menu item **Measurement data input** by available test results. The measurement data input for plastic packaging is shown here as an example.

For plastic packaging, the following measurement results can be deposited for the calculation:

- NIR laboratory
- Density determination
- Filtration losses (melt filter)
- Compatibility test

With density determination, for example, the calculated multilayer density can be replaced with a measured value.

With the option compatibility test, the entered components of CAT 3 (incompatibilities) are listed. If proof of recycling compatibility is available, this can be included in the calculation by the selection.

Example: NIR laboratory

Sensor-based sorting based on the principle of NIR spectrometric reflectance measurement is an elementary process step in the reprocessing of mainly lightweight packaging (LWP, "yellow bag/bin"). The measured spectra per pixel are compared with stored reference spectra.

The classification image (left) shows that the tested tube is fully identified as PE (Polyethylene) and therefore - based on the NIR detection - an unrestricted sorting is guaranteed. The user can enter such a measurement result in the menu Measurement data input to overwrite the predicted value with the measured value.



3. Introduction to CHIRA 3.12 Create Packaging | Summary of Results

CHIR

CHI Recyclability Assessment	Sum	mary of results (Particu	larities see	report)		<u>a 7</u> 52	
		Criteria	Analysis		Comments	Valu	lue
	C 0	Path allocation	-		Path 2: Polyethylene Range of validity: AT, BE, DE, (FR), (IT), NL, NO, PT, UK	1.00	000
	C 1	Valuable material content	Evaluation of material properties	Sum	HDPE, LDPE, PE, Tie layer resin (PE based) 0.93	03 0.93	303
English	~			CAT 1	0.0	00	
Start menu				CAT 2	EVOH, Lacquering 0.00	97	
Master data				CAT 3	0.0	00	
Path allocation Packaging components Structure/design Basic composition data	C 2 / C 2'	Identifiability with NIR, optical detection	Forecast		Necessity of measurement according to minimum standard: no Forecast result: unrestricted sortability	1.00	000
	C 3	Effective electrical conduction	Forecast / Measuremen		not relevant		
Composition	C 4	Ferromagnetism	Forecast / Measuremen	1	not relevant		
Measurement data input Summary of results	C 5	Material density after disintegration	Evaluation of material properties		Forecast result: losses of valuable materials due to density > 1 g/cm ³ considered	0.36	610
(eporting/Export	C 6	Disintegration rate/ degree of disintegration in water	Forecast / Measuremen		not relevant		
	C 7	Melting behaviour	Forecast		no separable components in the melt	1.00	000
	C 8	Inseparable contaminants	Evaluation of material properties		no inseparable contaminants	1.00	000
	С9	Other criteria	Evaluation of material properties		This criterion does not apply		
					Result: 34	6 0.3	3359

In the table of the **summary of results**, a differentiated evaluation result from the 9 standard criteria of the CHI evaluation catalogue is summarised. Individual factors, such as C 2 (NIR detection) and C 6 (disintegration behaviour), are predicted by complex algorithms.

In addition, the scope of validity is shown country-specifically. For the countries indicated in without brackets, a recycling path exists and the collection and recycling structure is at least 50 % implemented. For the countries shown in brackets, the collection structure is under development and the recycling structure is supplied on an industrial scale.



3.12 Create Packaging | Reporting/Export

CHIRA



The summary of result can be shown in the menu item **Reporting/Export** as a short or long report. The report is exported as a Word document for subsequent individual adaptation. For data transfer (e.g. for certification) a ZIP folder can be exported that contains the packaging data (CSV file) as well as photos and documents (e.g. technical data sheets, laboratory reports).

CHIRA Result Overview





Main data

Company: Institut cyclos-HTP Editor: Max Mustermann Packaging designation: Tube (Test) Article number of packaging: 123456 Article number of product: — GTIN: — Type of packaging: Single packaging Certificate available: Yes

Results

Recyclability: 34% Basis of determination: Forecast Material stream: Path 2: Polyethylene Countries with collection and recycling structure: AT, BE, DE, (FR), (IT), NL, NO, PT, UK

Back to the Start menu



3.13 Packaging Archive

CHIRA

OHIRA 1.0.0												_		
Packaging 6 🛱 🖾 🛄 🔁 🕮 🖬 🗠 🖽 🔅														
	Filte	r: Compa	ny F	ilter: Editor								Combi pa	ackaging	
CHI Recyclability Assessment	Filter: Packaging name			Iter: Packaging number			General search					Single packaging		
	Company	Editor	Name of packaging	Packaging number	GTIN	Туре	Assigned material path	Total mass [g]	Recyclate share	Recycla- bility (CHIRA)	Recycla- bility (certificate	Material (general)	Creation ^	
	Institu	DSc	Glasreiniger	4534543		Single	PET bottles	35.000		96%		Plastic	05/20/	
	Institu	DSc	PET-Flasche mit SiOx	34234		Single	PET bottles	25.000		100%		Plastic	05/03/	
nglish 🗸	СНІ	MB	Blisterverpackung mit	TV3		Combi							05/02/	
Start menu	СНІ	MB	Tablettenblister [1]	TV3.1		Combi	Aluminium	2.900		23%		Plastic	05/02/	
vlaster data	СНІ	MB	Faltschachtel [1]	TV3.2		Combi	Paper, card	13.700		19%		Paper, ca	05/02/	
ath allocation	СНІ	MB	кvз	TV3.3		Combi				0%			05/02/	
ackaging components	СНІ	MB	KV6	TV3.6		Combi	Polypropyl	3.000		100%		Plastic	05/02/	
tructure/design	СНІ	MB	KV4	TV3.4		Combi				0%			05/02/	
asic composition data	СНІ	MB	KV5	TV3.5		Combi				0%			05/02/	
omposition	Institu	DSc	PET-Flasche mit SiOx	34234		Single	PET bottles			100%		Plastic	04/30/	
reasurement data input	Institu	DSc	Faltschachtel (Test)	31423		Single	Paper, card	22.000		87%		Paper, ca	04/29/	
enorting/Export	Institu	DSc	Faltschachtel	432432		Single	Paper, card	0.000		0%		Paper, ca	04/28/	
sporting/export	Institu	DSc	PET-Flasche mit Sprüh	452854287		Single	PET bottles	37.000		0%		Plastic	04/22/	
	Institu	DSc	Zahncreme-Tube (Lam	43535436		Single	Polyethylene	20.000		50%		Plastic	04/22/	
	Institu	DSc	Zahncreme-Tube	4324326		Single	Polyethylene	20.000		92%	92%	Plastic	04/22/	
	СНІ					Single				0%			04/21/	
	СНІ	MB	Blisterverpackung mit	TV3		Combi							04/20/	
	СНІ	MB	Faltschachtel	TV3.2		Combi	Paper, card	13.700		19%		Paper, ca	04/20/	
	СНІ	MB	Tablettenblister	TV3.1		Combi	Aluminium	2.900		23%		Plastic	04/20/	
	СНІ	MB	TestVerpackung2	TV2		Single	PET bottles	21.600		0%		Plastic	04/20/	
	СНІ	MB	TestVerpackung1 [red.	TV1		Single	Polyethylene	13.900		94%	87%	Plastic	04/20/	
	СНІ	MB	TestVerpackung1	TV1		Single	Polyethylene	13.100		34%	87%	Plastic	04/20/ 🗸	
		Back		mport of ackaging		Export (packagi	of I	Export of (CSV	table)	D	uplicate ackaging	F p	1/45 Read and edit ackaging data	

The **packaging archive** provides an overview of all created packaging, so that even extensive product/packaging assortments can be documented, organised and managed in a user-friendly way with item number accuracy. The option of exporting data from the archives enables further processing and data use in tabular calculations or databases, e.g. for periodic tracking of your sustainability targets.

4. Summary and Outlook

- Assessment of recyclability according to the CHI standard
 - Sworn expert evaluation, objective, not interest-driven
 - For all packaging types and materials
 - Conforms to the minimum standard
 - EU-wide scope (with national differentiation)
 - Basis for awarding in accordance with EN ISO 14021

• Multifunctionality tool with the following features

- Individual evaluation of packaging
- Database for determining and tracking sustainability goals
- Various export functions
- Certificate archive
- Continuous development
 - Constant review and updating of the assessment basis
 - Modular, functional addition
 - Packaging component library
 - Alignment with Design for Recycling (D4R) guidelines
 - CO₂ footprint calculation
 - ...





Contact





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