Product name: Allplastik-Blitzbinder ABVS 270
Certification code: 021-ALL-PL
Date: 2021-04-30

RecyClass

Audit report

for testing the recyclability
based on the RecyClass methodology
- Design for Recycling Assessment -

PLASTSHIP
Your plastic recycling network

Certificate No. 021-ALL-PL
Date: 30 April 2021

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RecyClass

DESIGN FOR RECYCLING AUDIT REPORT

1 Introduction

1.1 Recyclability Definition

The recyclability of a plastic packaging is defined as its ability or not of being collected, sorted, and recycled in an efficient way by taking into consideration the best available technics to collect, sort and recycle in order to produce a new raw material to be used for the production of new products.

The concept of recyclability must refer to a single, specific packaging and cannot refer to group or categories of packaging that could contain packaging with different ability of being collected, sorted, and recycled.
The RecyClass Recyclability Methodology[1] integrates the norm EN 13430 "Packaging - Requirements for packaging recoverable by material recycling". This standard defines certain minimum requirements in terms of a declaration of conformity regarding to “material recyclability”.

1.2 Scope of the Design for Recycling Assessment

The Design-for-Recycling Assessment evaluates and ranks from A to F the recyclability of a plastic packaging, determining to which extent it is suitable for a specific recycling stream based on the state-of the-art sorting and recycling technologies available in Europe. The Assessment is based on RecyClass Design for Recycling Guidelines[2] and its associated self-assessment tool[3], which allows to classify the technical recyclability of a plastic packaging on the EU market.
The audit report evaluates design aspects of the packaging that will result in material losses in the sorting and recycling processes, or that will result in a downgrading of the recycled plastic quality, will impact the rank. The specific recycling stream of the packaging and the downgrading factors are detailed in the following document.
The certificate is delivered by an independent and accredited certification bodies with a validity of three years. Any changes and variations from the design can affect the validity of the Certificate and must be reassessed.
Any final plastic packaging product which falls under the scope of the RecyClass analysed packaging and materials may apply for Certification. Namely, packaging products must include all their different components and must be either pledged on the market or yet to be introduced with no further alternations to be made to its design.

[1] RecyClass Recyclability Methodology
[2] RecyClass Design for Recycling Guidelines
[3] RecyClass Online Tool

1.3 Recyclability Ranking

RecyClass defines a class ranking system to evaluate plastic packaging recyclability. The class ranking ranges from A to F, where an A implies that a packaging is designed to be fully recyclable, while a F indicates that a packaging is unrecyclable, and its only available option is energy recovery. Classes A, B and C are considered recyclable according to the RecyClass Methodology.

CLASS A: The packaging does not pose any recyclability issues and the recycled plastics can potentially feed a closed-loop scheme to be used in the same quality application.

CLASS B: The packaging has some minor recyclability issues that slightly affect the quality of the recycled plastic generated. However, majority of recycled plastics from this packaging can still potentially feed a closed loop.

CLASS C: The packaging presents some recyclability issues that affect the quality of the recycled plastics or lead to material losses during recycling. In the first case the recycled plastic could be used in a cascade open-loop scheme, whereas in the latter case the plastic could potentially feed a closed loop scheme.

CLASS D: The packaging has significant design issues that highly affect its recyclability or imply large material losses. In both cases the recycled plastic can only be fed into low-value applications (i.e. the packaging will be downcycled).

CLASS E: The packaging has major design issues that jeopardize its recyclability or imply severe material losses. The packaging is not considered recyclable and can only be used in incineration with energy recovery.

CLASS F: The packaging is not recyclable at all, either because of fundamental design issues or a lack of specific infrastructure for collection, sorting and recycling in EU28+2.

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2 Packaging Description

Brand of the product	Allplastik-Blitzbinder
Name of the product	Allplastik-Blitzbinder ABVS 270
Type of product	LDPE packaging binder
Polymer(s) used	LDPE
Packaging size height-width-depth (mm)	665 - 6,6 - 6,6
Content volume (ml)	none
Company name	Württembergische Allplastik GmbH
Email:	ursula.siegle@allplastik.de

The analysed packaging is a binder used as a closure for e.g. beverage bags.
A floating test has been conducted to confirm the density of < 1 g/cm^3 for all components. PE has been identified via NIR. A sorting test has been conducted.

Packaging Allplastik-Blitzbinder ABVS 270					
	Components	**Weight**	**Density**	**wt component**	**wt Total**
		(g)	(g/cm^3)	(%)	(%)
Body	LDPE Allplastik-Blitzbinder ABVS 270	12,3984	< 1	98,40%	98,40%
	1,6% CPC Masterbatch	0,2016	< 1	1,60%	1,60%
TOTAL		12,6			100,00%

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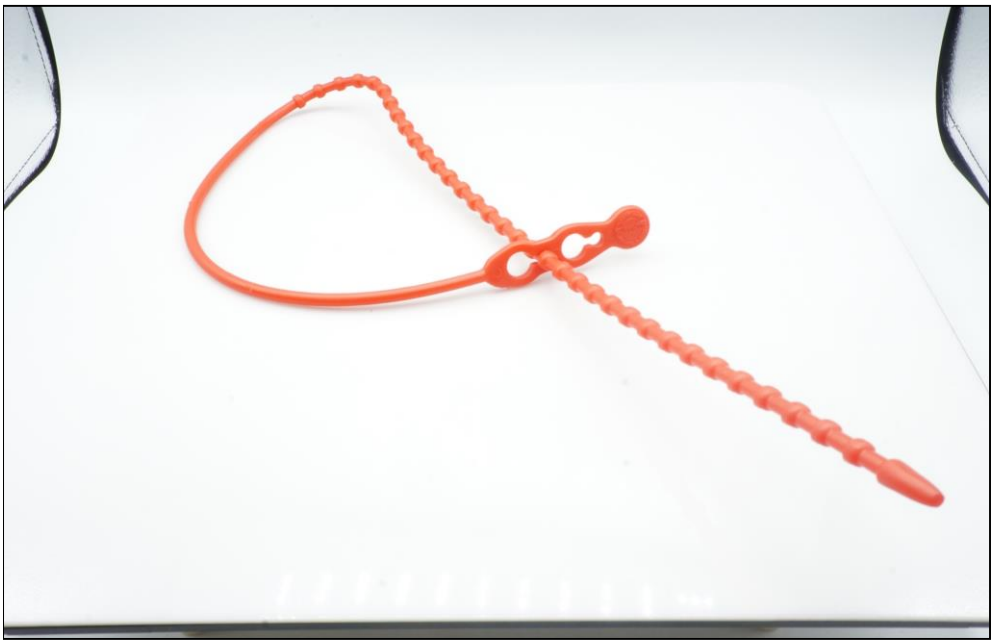
3 Summary of results

	Description	Interim Class
Criterion 1	Suitability	A
Criterion 2	PRE stream availability	A
Criterion 3	Sortability	B
Criterion 4	Recyclable plastic content	B
Criterion 5	DfR incompatibilities	B
Criterion 6	Easy to Empty index	B
Criterion 7	REACH compliance	B
Final result	B	



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According to the RecyClass requirements the packaging is suitable to be analysed under the RecyClass Recyclability methodology.

The packaging Allplastik-Blitzbinder ABVS 270 is classified as Class B.

Logo:

Certification is valid until 2024-04-30

This certification is valid solely for the audited packaging as described in the Product Specifications Datasheet and to other packaging of the same family hereby listed: Allplastik-Blitzbinder ABVS 270, Allplastik-Blitzbinder ABV 250. Any changes and variations from the design can affect the validity of the Certificate and must be reassessed.

Name of the auditor:	Andreas Bastian
Date of the audit:	2021-04-30

4 Detailed Information

1. Suitability

Does your packaging consist predominantly of plastic by weight (i.e. more than 50%)?
Yes

Does the surface of your packaging consist at least of 50% of plastic?
Yes

Is there an aluminium layer (e.g. in a multilayer film thicker than 5 µm), or an aluminium label/sleeve which the user cannot remove when opening the packaging?
No

Does your packaging have a surface with a colour containing non detectable carbon black?
No

Will or is your packed good considered as a Plant Protection Product or Biocidal Product as defined in the Plant Protection Products Directive (No 1107/2009) and Biocidal Product Regulation (No 528/2012)?
No

Is your packaging containing bio- or oxo-degradable plastics?
No

Interim Result: The packaging is basically suitable for this analysis.
Class: A

2. PRE recycling stream

Is there a Plastics Recyclers Europe recycling pathway for this material?
Yes - HDPE coloured containers

Interim Result: Collection, sorting and recycling pathways for this packaging exist at European level for HDPE coloured containers.
Class: A

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3. Packaging composition

Is more than 95% of the total weight of the packaging made of one polymer?
Yes, 98,40% PE

Can the different polymers, with the exception of labels, be easily separated by hand after grinding?
No different polymers

What is the proportion by weight of the element(s) with a PRE recycling pathway?
Of the 98,4% recyclable plastics, the recyclable elements are of 98,4% LDPE

Does your packaging come in direct contact with food?
Not necessarily, raw material is food contact compliant

Is it possible to find and use recycled plastic in the packaging, even partially?
With restrictions and at a sacrifice of food contact compliance

Interim Result: No deduction due to recyclable content but due to sorting behavior (see Annex). Packaging is made from more than 95% of recyclable plastics. The masterbatch in the main component is deducted from the recyclable weight percentage.

Class: B

4. Compatibilities

What material is the packaging body made of?
LDPE

What size is the packaging?
665 - 6,6 - 6,6

What colour is the packaging body?
Red

What is the barrier of the packaging body made of?
No barrier

What additives does the packaging body contain?
No additives in the body

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What material are the closures made of?
Packaging is a closure

Are there liners, seals and valves?
No

Which label is used?
No label

Is there a sleeve?
No sleeve

Is there a tamper evidence wrap?
No tamper evidence wrap

Which adhesive is used for labels?
No label

Which inks are used for the label?
No label

Is there any direct printing?
No printing

Which inks are used for the direct printing?
No printing

Are there any other components?
No

Which adhesive are used for other components?
No other components

Interim Result: In the scope of this recyclability assessment no incompatibility could be identified. The packaging is therefore classified B.

Class: B

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5. Easy to empty/easy to access

What is the net weight of your packaging without content (W)?
12,6g

What is the ratio of the packaging weight to weight of packed good?
No content

What is the percentage of the product that after normal use is still in the packaging (used formula)?
No content

Easy to Empty / Easy to Access index value
No content

Interim Result: The packaging is classified B – The Easy-to-Empty-Index has not been assessed within the scope of the assessment since there is no content. Packaging does not have any content.

Class: B

6. REACH compliance

Does your packaging contain intentionally added substances of very high concern (SVHCs)?
No

Final Result: The packaging is classified B.
Class: B

Date
2021-04-30

Signature

7 Annex

7.1 Criterion 1: Suitability

Sutiability analysis	
Does your packaging consist predominantly of plastic by weight (i.e., more than 50%)?	**Yes**
Does the surface of your packaging consist of at least 50% of plastic?	**Yes**
Is there an aluminium layer, e.g., in a multilayer film thicker than 5 µm, or an aluminium label/sleeve which the user cannot remove when opening the packaging?	**No**
Does your packaging have a surface with a colour containing non detectable carbon black?	**No**
Will or is your packed good considered as a Plant Protection Product or Biocidal Product as defined in the Plant Protection Products Directive (No 1107/2009) and Biocidal Product Regulation (No 528/2012)?	**No**
Is your packaging containing bio- or oxo-degradable plastics?	**No**

The packaging is basically suitable for this analysis.
Result: Class A

7.2 Criterion 2: PRE stream availability

Packaging with a PRE recycling stream in place, meaning that collection, sorting and recycling are established and functioning at least in one European Country.

Recycling pathways recognized by Plastics Recyclers Europe (PRE) are PET-bottles, PET trays, PE films, PP films, PE containers, PP containers, PE and PP crates & pallets, Polyolefin-based pots, tubs & trays.

The analysed packaging is a binder used as a closure for e.g. beverage bags. Collection, sorting and recycling pathways for this packaging exist at European level for HDPE coloured containers. The packaging therefore satisfies the recyclability definition.

Result: Class A

7.3 Criterion 3: Sortability

Plastic packaging can be sorted into a polymer stream according to the state-of-the-art technology available in Europe. The RecyClass Sorting Protocol must be applied in the following cases:

Sortability analysis	
Large labels (covering > 50% of the surface) made from a different polymer	No
Full body sleeves	No
Perforated full body sleeves	No
Multi-layer structures (excluding PE/PP EVOH)	No
Metallisation (excluding on the inside/in the middle layer)	No
Non NIR detectable colours on the packaging (i.e. when dark colours used for internal layers)	No
Different types of plastic used on front and back sides	No
Different types of plastic (rigids and flexibles) used in the packaging	No
Ferro magnetic components	No
Round shape, very rigid and hard to compact	No

Due to the form of the packaging a sorting test has been conducted. The analysed packaging is a binder used as a closure for e.g. beverage bags. Sorting efficiency is 60%. For a sorting efficiency of >50% and <70% 1 class is deducted.

Result: Class B

7.4 Criterion 4: Recyclable Plastic Content

The design compatibility process is carried out to establish the amount of recyclable plastics in the packaging and its ability to replace virgin plastics in new products. Any non-recoverable (non-plastic) materials must be considered and removed from the proportion of recyclable plastics. The class ranking to consider is the following:
A: > 95%; B: 90-95%; C: 70-90%; D: 50-70%; E: < 50%

The recyclable content is 98,4% with a packaging composition of 98,4% LDPE. Materials are recycled in the HDPE coloured containers stream.

Result: Class B

7.5 Criterion 5: DfR Incompatibilities

Packaging would be designed according to the RecyClass Design for Recycling Guidelines. The criterion accounts for all the parts of packaging such as adhesives for labels, labels, sleeves, valves/seals, caps, inks, additives, etc.

In the scope of this recyclability assessment no incompatibility could be identified.

Result: Class B

7.6 Criterion 6: Easy to Empty index

Packaging has to be easily accessible and emptied to allow minimization of the contained residues in the recycling stream. The presence of product residues on the packaging is evaluated by emptying and weighting 10 times the packaging and applying the formula:

$$Ete_i = \left(\frac{Pe - W}{Pf}\right) x\ 100$$

A penalty of 1 class is applied if the index is higher than 5. A penalty of 2 classes is applied if the index is higher than 10 but lower than 15 (and so on.).

No content

Pe = 12,6 W= 12,6 Pf = none

No content

The Easy-to-Empty-Index has not been assessed within the scope of the assessment since there is no content.

Result: Class B

7.7 Criterion 7: Reach compliance

The LDPE packaging binder is not provided by any of the Substance of Very High Concerns (SVHCs) listed by Echa (European Chemical Agency) at the following link: https://echa.europa.eu/candidate-list-table.

Result: Class B

Date
2021-04-30

Signature