

### Plant fibers with PBAT lamination

### Material description

The sugar extraction from sugar cane produces a large amount of fibers, a valuable biomass which, together with other plant fibers, such as bamboo, is ground to a fine pulp with the addition of water and additives, processed and pressed into shape. Subsequently the forms are laminated with a PBAT film.

PBAT (polybutyrate adipate terephthalate) is an EN13432 certified, biodegradable polymer (plastic) that is synthetically manufactured on the basis of fossil and partially biobased raw materials. The PBAT film is characterized by its high extensibility (e.g. as a laminating film) and its heat resistance of up to 230°C.

Further material information can be found at: <a href="http://www.materialarchiv.ch/detail/1794/Polybutyratadipat-Terephthalat#/detail/1794/polybutyratadipat-terephthalat">http://www.materialarchiv.ch/detail/1794/Polybutyratadipat-terephthalat</a>

### Product description

Picture	Description	Dimensions (mm)	Article number
	Bowl sugar cane/PBAT, 500ml	170X170X40	18004
	Bowl sugar cane/PBAT, 75oml	170X170X55	18005
	Bowl sugar cane/PBAT, 600ml	195X170X40	18006
	Bowl sugar cane/PBAT, 900ml	195X170X56	18007
0	Bowle Zuckerr./PBAT, 400/180ml, 2-comp.	195X170X56	18008
-in	Meal tray sug. cane/PBAT, 600ml	230X165X30	18009
Charles and Charles	Meal tray sug. cane/PBAT, 950ml	230X165X47	18010



Picture	Description	Dimensions (mm)	Article number
	Bowl nature 600ml round	Ø151.5x60	20982
	Bowl nature 900ml round	Ø195X52	20983
	Bowl nature 1200ml round	Ø195×65	20984
	Bowl nature, PBAT, 1000ml	229X153X57	22494
4	Bowl nature, PBAT, 420/250ml 2 comp.	229X153X57	22495
	Meal tray sug.cane,1 part.,Bio-lam.	227X178X43	22783
Carry.	Barquette menu c. à s.,2 pces,	227X178X45	22784
(3)	Meal tray sug.cane,3 part.,Bio-lam.	227X178X45	22785
The same of the sa	Meal tray sugar cane/PBAT 420ml	175X125X35	23675
CA.	Meal tray sugar cane/PBAT 520ml	175X125X45	23676
March 1	Meal tray sugar cane/PBAT 620ml	175X125X55	23677
	Bowl sugar cane/PBAT 350ml	Ø151.5X45	23679

### Material/composition

Plant fibers with PBAT lamination 50my

### Storage

Storage temperature: ambient Relative humidity: dry

Storage conditions keep away from direct sunlight

Page 2 / 6

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#### Purpose of use

☑The products are suitable for direct contact with food.

Types of food which should **NOT** come into contact with the material:

- ☑ Pure fat and oil, marinated products and oil
- ☑ Very sour pH<4.5
  </p>

### Applications:

- ☑ Deep freezing -20°C
- ☑ Hot filling, then keeping warm 70°C for up to 2 hours
- Single-use
- ☑ Heating o.5h, 200°C
- ☑ Heating 1.5h, 120°C
- Any food contact at frozen and refrigerated conditions.

#### Confirmations

These articles meet the following regulations:

**⊠Regulation (EC)** No 2023/2006 on good manufacturing practice for materials and articles intended to come into contact with food

☑Regulation (EC) No 1935/2004 on materials and articles intended to come into contact with food and

☑Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food. And subsequent amendments until the date of the test report.

☑ Directive 94/62/EC on packaging and packaging waste

■SR 817.023.21 The Swiss Ordinance on Materials and Articles in Contact with Food



### Overall migration

Bowls white with PBAT lamination tested under the following conditions (test report SQTS 2019L10873, 2017L49347, UEB 1828036):

Simulant	Time	Temperature
⊠E: Poly(2,6-diphenyl-p-phenylenoxid) or Tenax	10d	40°C
⊠E: Poly(2,6-diphenyl-p-phenylenoxid) or Tenax	30min	200°C
⊠Isooctane*	3omin	40°C
⊠Alternative simulant ethanol 95 % (v/v)*	2h	60°C
⊠A: Ethanol 10 % (v/v)	10d	20°C
Simulant	Time	Temperature
⊠Alternative simulant ethanol 95 % (v/v)	10d	20°C
⊠Isooctane	10d	20°C

<sup>\*</sup>The test times and temperatures for the alternative simulants were taken from Table 4 "Conditions for Replacement Testing" of Directive 82/711/EEC or the "Guidelines on testing conditions for articles in contact with foodstuffs", CRL-NRL-FCM Publication 1st Edition [2009] and correspond to 2h, 70°C for simulant D2.

Bowls nature with PBAT lamination tested under the following conditions (test report SQTS 2021L20200)

Simulant	Time	Temperature
☑ E: Poly(2,6-diphenyl-p-phenylenoxid) or Tenax	0.5h	200°C
⊠ Isooctane	1.5h	60°C
☑ Alternative simulant ethanol 95 % (v/v)	3.5h	60°C

### (PBAT film test report SQTS 2019L05393):

Simulant	Time	Temperature
⊠E: Poly(2,6-diphenyl-p-phenylenoxid) or Tenax	o.5h	200°C
⊠Alternative simulant ethanol 95 % (v/v)	2h	70°C
⊠Alternative simulant ethanol 95 % (v/v)*	3.5h	60°C

<sup>\*</sup>Equivalent to 2h, 100°C for simulant D2

Page 4 / 6

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The global migration values are below the limit of 10  $mg/dm^2$ . For the fat simulants, a correction factor of X/2 should be applied.

### Specific migration

Compliance with the regulations cited above is based, on the one hand, on the information provided by our suppliers, who do not disclose all ingredients to us due to secrecy, and on the other hand on our own migration tests, which we commissioned in order to validate the plausibility. Based on both the subcontractor's documents and own results, compliance with the specific migration can be confirmed.

A screening was performed with Tenax and ethanol 95% by volume. NIAS found were subjected to a risk assessment, if appropriate.

#### Calculation basis

 $\boxtimes$  Ratio of food contact surface area to volume used to establish the compliance of the material or article: 6 dm<sup>2</sup>/kg or 15.6 dm<sup>2</sup>/l

### Organoleptic test

The organoleptic test was carried out in accordance with Regulation (EC) No 1935/2004. Under normal or foreseeable conditions of use, the products do not affect the organoleptic properties of the food.

Production site:

China

Customs duty number:

4823.7000

Certificates:

DIN EN 13432, DIN CERTCO certificate No: 7Po456







#### Disclaimer

This confirmation applies to the material supplied by us as described. The material then fulfills the requirements of these guidelines for contact with the specified filling goods, provided the specified food contact conditions are observed. The user must convince himself of the suitability of the material for the intended filling material beyond the requirements of the guidelines.

#### Reclamation

Deliveries, which differ from the listed specifications, will be withdrawn and replaced after review.

Date: 21.10.2021

Released by: MEI Andreas Meier (Head of purchasing) Mir

Version: 9

Greenway-Denmark ApS

Administration: Tolneyej 133, Tolne DK-9870 Sindal

Lager: Ole Rømers Vej 1 B DK-9870 Sindal

Page 6 / 6

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