#### What is BOKASHI?

The term refers to the transformation of organic waste using the principle of fermentation that is carried out by adding a dry mixture of special Bokashi bacteria to the organic waste.

Unlike classical composting, here the fermentation process takes place without air and relies on living organisms that activate upon contact with organic material.

The output is not soil, as is the case for standard composting, but rather a **fermented base** with clearly distinguished components of organic waste intended for further use.

#### Why process organic waste at home?

By processing organic waste, you can save on fertilizer while providing your plants with chemical-free nutrients. And all you need to do is process waste instead of throwing it away. This helps return precious nutrients back to nature – nutrients that would otherwise end up in a dump or incinerator.

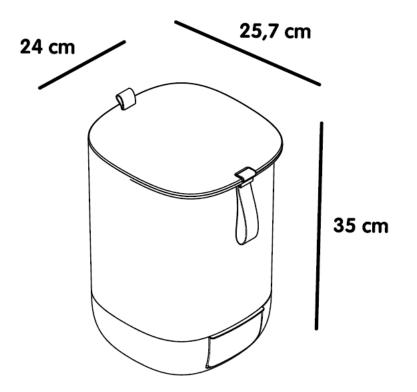
Another benefit is the yearlong supply of material for the production of your own compost and fermented liquid for fertilizing indoor as well as outdoor plants.

#### Bokashi bin

## **Basic description**

This is an indoor bin designed for the processing of **organic household waste**, which uses fermenting bacteria to transform organic waste to a fermented liquid and fermented mixture. The obtained **fermented material** that can be used to create **first-class compost**, while the liquid has a range of possible uses in the household.

#### **Technical data**



# What does the package contain?

Basic parts of the bin:

- lid (A)
- replaceable sealing (B)
- upper bin (C)
- separation insert (D)
- valve with sealing and spring (E)
- bottom part (F)
- container for fermented liquid (the extract) (G)
- straps

#### Accessories:

- pressing piece (I)
- measuring glass
- filtration insert (J)

## **Step-by-step guide to fermenting:**

- Place the filtration insert (J) at the bottom of the separation insert (D) before placing any organic waste in the composter.
- Cut the organic waste into small pieces.
- Spread the cut waste over the filtration insert (J) up to a height of at most 2 cm.
- Spread one and a half measuring glass of bran on the organic waste.

## TIP: You can also mix the Bokashi bran with the organic waste (to speed up the fermentation process).

- Use the pressing piece (I) to apply pressure on the cut pieces of waste.
- Carefully close the lid (A) and check that it is properly sealed. Only open the Bokashi bin when refilling it.

## We recommend to only open the Bokashi bin at most once per day.

# Once the fermentation process has already started, open the bin as little as possible in order to avoid interrupting the fermentation process.

- During fermentation, fermented liquid will form in the bin. The first collection of the liquid will be possible in approximately 14 days from the start of fermentation. After that, you should collect it approximately every 3-5 days.
- Leave a full Bokashi bin closed for 2-3 weeks. Due to the ongoing fermentation process that takes place in an airless environment, it is necessary to leave the Bokashi bin closed. However, the created liquid needs to be collected regularly. The time required to fill a bin depends on the quantity of produced organic waste. The average filling time for an average family is about 30 days.
- After the fermentation period is over (2-3 weeks), the fermented material can be used in various ways. For instance, the material can be simply thrown in a brown container intended for BIO waste. Another option is to bury the material in the ground or mix it with a garden substrate and leave it to start fully decomposing, which takes about 4-6 weeks.
- Afterwards, carefully wash the Bokashi bin with warm water without the use of cleaning agents.
- You can then repeat the whole process for fermenting organic waste.

## Why is it a good idea to have 2 Bokashi bins?

When one Bokashi bin is filled, the fermentation process will begin in an airless environment. The bin will then remain closed for 2-3 weeks. However, you will continue to collect the fermenting liquid.

In order to continue with the disposal of organic waste while the first Bokashi bin is closed, we recommend keeping a second identical Bokashi bin. This will allow you to avoid interrupting the waste disposal process. That is why we recommend keeping 2 Bokashi bins at home for the continuous disposal of organic waste.

## What can go into a Bokashi bin?

- various types of fruits and vegetables (peel, pulps, seeds, stalks, leaves)
- banana, lemon, pumpkin and pineapple peel
- pastry (small pieces)
- teabags, coffee grounds including paper filters
- leaves and stalks of indoor as well as outdoor plants
- dead flowers
- cooked food
- raw as well as cooked meat
- fish
- eggs
- yoghurt

# TIP: Cut organic waste into smaller pieces in order to speed up the fermentation process.

## What cannot go into a Bokashi bin?

- liquids (vinegar, oil, juice, milk, water etc.)
- bones
- paper
- ash
- animal feces

## Where should the Bokashi bin be stored? In other words: where should you put it?

The Bokashi bin can be kept in the kitchen, in the corridor, in the garage, etc. Keep the container at room temperature. Avoid placing it in direct sunlight!

## What can the fermentation liquid be used for?

The liquid can be used as a fertilizer for plants and soil. For fertilizing, it should be mixed with water as follows:

1:100 (1 deciliter per 10 liters of water) – for watering 1x every 14 days 1:200 (1 deciliter per 20 liters of water) – for everyday watering

TIP: The liquid can be kept in a clearly marked and closed container in, for example, a fridge or other cold area at a temperature of 4 to 8 degrees Celsius. Mark the container including the date of collection. Use the liquid ideally within one month from the date of collection.

If you do not keep the liquid in a fridge, process it ideally within 8 hours from collection.

TIP: The liquid can also be used to clean kitchen and bathroom drains (sink, bathtub, ...) and also to activate a septic tank. In this case the liquid should not be diluted, but it needs to be left in the drain for at least 1 hour.

What is the fermented material good for?

After two to three weeks of ripening, the fermented material will look similar to what it looked like at the beginning of the process. The structure of the fermented material will be identifiable; it will have a darker color and will emanate a sweet-and-sour odor.

The reward for the biological processing of waste is the fermented material obtained from Bokashi. By burying or mixing this material with soil or substrate, this material will quickly decompose and dissolve – this takes about 4-6 weeks.

The material will enrich your soil without burning it with various chemical substances, and the result is a valuable material for growing.

The decomposition of the processed fermented material in the soil or substrate depends on a range of factors, such as the size of the waste particles (larger or smaller pieces), temperature, season, humidity, frost, etc. If you do not have your own garden, you can throw the fermented material into a bio waste container. Another option is to donate the fermented material to growers or community gardens.

# What should you do if...

## There's mold:

The mold may be either white or black.

**White mold** appears if the Bokashi bin is filled too slowly, there's too much air, or it contains larger pieces of waste. White mold is very beneficial, it supports the waste decomposition process and reduces the odor of the fermented waste. There's no reason to worry about it.

TIP: If the presence of white mold still makes you feel uncomfortable, you can increase the amount of Bokashi bran, reduce the layers of waste or mix the Bokashi bran with the organic waste. Another option is to place a piece of solid paper on the upper layer of the Bokashi bran; this will stop the spread of the mold.

**Black mold** appears if the Bokashi bin is insufficiently closed, the bran is applied inconsistently, there are high layers of organic waste or the fermented liquid is not collected.

TIP: In this case, empty the bin into a spare container. There, mix the waste with Bokashi bran to speed up the fermentation process and return the fermented material into the Bokashi bin. Let the bin sit for 3-5 weeks. Then, mix the fermented material with soil or compost to complete the decomposition process.

## Smell:

The odor emanating from a Bokashi bin can change during the course of the fermentation process depending on the type of organic waste used.

## TIP: If there's a strong sweet-and-sour odor when opening the bin, increase the amount of fermentation bacteria.

## What if I go on vacation?

A vacation isn't a problem. The organic waste will continue fermenting even when you're not around. A longer ripening period in an airless environment is beneficial for the fermentation process. At the same time, fermentation liquid will be continuously created under the separation insert. If there's too much liquid, the space below the insert in the upper container may become completely filled and the liquid could start mixing with the organic waste, which will then become more humid. This depends on the type of the processed organic waste. We recommend collecting the liquid immediately after returning from vacation. Afterwards, keep an eye on the bin and regularly try to collect any further liquid that may appear.

#### Maintenance and cleaning:

After removing the fermented material from the Bokashi bin, clean the bin using warm water. Do not use any cleaning agents, since this would damage the natural environment of the fermentation bacteria. Each time the Bokashi bin is cleaned, it is necessary to carefully flush the valve with the sealing and spring using warm water.

Spare parts:

Do you need a spare part for your Bokashi bin? You can purchase it at <u>www.plastia.eu</u>.

## Disposal:

Dispose of the product in an environmentally-friendly manner, for instance by using a container for plastics (plastic parts). The disposal must be carried out in compliance with the appropriate government directive (European directive) – Act No. 185/2001 (2002/95/EC), on Waste and amendments to certain other acts, as amended.

# Warranty:

The product comes with a warranty of 24 months from the date of receipt. The warranty is only provided in justified warranty cases for material or production defects. The warranty is only valid if the product is used according to the operating instructions.

## Manufacturer:

Plastia s.r.o., Na Pankráci 1062/58, 140 00 Prague 4, Czech Republic Tel.: +420 566 667 001, e-mail: <u>info@plastia.cz</u>, <u>www.plastia.eu</u>

# **Important Warning:**

The fermented material, fermented liquid and the fermentation bacteria powder (bran) are not intended for direct consumption.