

## welcome to **HOTBIN** composting



# let's start composting! grab a tea and read me



# **USER GUIDE**

#### **Essential Reading**

- Hot Composting Tips
- Care and FAQ's











# how the hotbin works

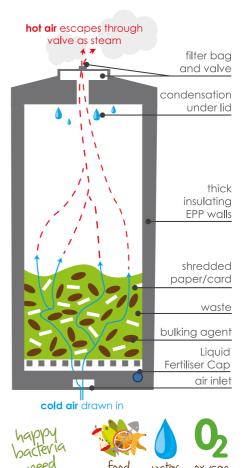
HOTBIN is an aerobic composter which achieves hot composting temperatures of 40-60°c by maximising what nature does naturally; keeping bacteria happy with sufficient water, oxygen and food (waste).

Heat is generated by bacteria as waste is digested, the insulating EPP walls then lock this in and the HOTBIN's temperature rises.

Waste is mixed with shredded paper/card to control moisture and bulking agent is used to create air spaces. Air (oxygen) is drawn in through the bottom air inlet and uses the air spaces to circulate around bacteria, feeding them with oxygen and keeping them composting aerobically.

Heat produced during bacterial activity creates moisture during decomposition which then converts into water vapour and leaves via the valve as steam.

HOTBIN works as an insulated chimney with three layers; upper hot active layer, maturing warm middle and cool base.



# health and safety

Composting is a natural biochemical process involving bacteria and fungi. Humans have been composting safely for thousands of years, however we advise adhering to basic hygiene.

- Always wear gloves, cover cuts and wash hands after composting.
- DO NOT leave kitchen caddy, gloves or other compost equipment near food preparation surfaces.

- Take appropriate precautions if you suffer from asthma or related respiratory conditions e.g. wear a dust mask.
- Take care when handling kick start bottle, thermometer & chopping waste.
- Check the temperature is at 40°c with an internal thermometer before adding cooked food waste and pet waste.

Please read the online health and safety advice in the HOTBIN help section.

#### **HOTBIN Parts**

Anatomy of the HOTBIN

Lid keep tightly closed and wipe area clean after adding waste. DO NOT force hinged lid backward.

Hatch Panel to remove compost. Do not remove without waste inside. Top of the hatch panel specifies height of base layer.

#### **Aeration Base Plate**

Disperses air through the HOTBIN utilising the air spaces created by adding bulking agent.

What Is HOTBIN Made From?

Expanded polypropylene (EPP) which is fully recyclable.





Raised Lid Panel with lid thermometer, aeration valve and built-in carbon filter to control adours.

Cam Strap(s) secure hatch panel against pressure exerted by compost. NB: One strap with HOTBIN Mini.

**Liquid Fertiliser Collection** 

Check fortnightly to collect liquid fertiliser for use in enriching soil.

#### **HOTBIN Accessories**



#### **Internal Thermometer**

Always use this to check the internal temperature before adding waste types that should only be added over 40°c. There can be a variance between the lid and internal temperature depending on the waste level inside the HOTBIN.



#### **Kick Start Bottle**

Follow bottle instructions. Item Supplied Empty
For use when starting the HOTBIN when outside temperature is below 5°c or after a longer period when the unit has cooled down after not being fed. Contact support for advice after two failed attempts.



#### **Raking Stick**

Use to remove compost or mix in new waste with paper/card and bulking agent. Do not mix the entire contents of the HOTBIN as heat will be dispersed and lost to the cooler parts of waste resulting in the unit cooling down.

# setting up your hotbin

Place the HOTBIN on any hard flat surface, in sun or in shade.



Cam strap(s) provide hatch support against pressure exerted by compost.



Leave valve open and keep clear to allow air to circulate.



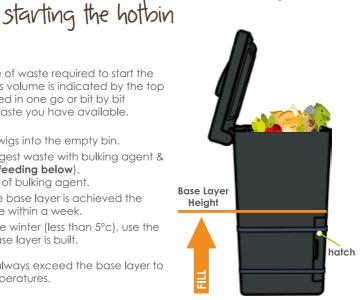
Check the blue cap is finger-tight and try not to over tighten.

# **Build the Base Layer**

The base layer is the volume of waste required to start the hot composting process. This volume is indicated by the top of the hatch, it can be added in one go or bit by bit depending on how much waste you have available.

- 1. Add a thin scattering of twigs into the empty bin.
- 2. Add chopped, easy to digest waste with bulking agent & shredded paper/card (see feeding below). **DO NOT** add the entire bag of bulking agent.
- 3. Keep adding waste, once base layer is achieved the temperature should increase within a week.
- 4. If starting the HOTBIN in the winter (less than 5°c), use the kick start bottle once the base layer is built.

NB: The waste level should always exceed the base layer to sustain hot composting temperatures.



# feeding the hotbin

#### STOP! Are You Adding Waste That Requires HOT Composting (40-60°c)?

The lid thermometer is for guidance and the extra thermometer is for accuracy. There can be a difference dependant on the waste level.

If adding waste that requires **HOT** composting (see waste digestion table) always check the internal temperature by inserting the thermometer into the hottest part of the waste, the top 5-10cm.



#### **Every Time You Feed the HOTBIN**

Add chopped waste mixed with bulking agent, shredded paper/card.

Whatever sized waste caddy you use begin with the following feeding guidelines. Every HOTBIN's contents will differ so alter these ratios as you learn about yours.



### waste caddy

For every full caddy/ container of waste



Half a caddy of paper/card



A fifth of a caddy of bulking agent

#### How Much Waste to Add Weekly?

minimum

2.5kg (HOTBIN Mini) | 5kg (HOTBIN)

ADD

maximum add minimum amount every other day

**NB:** 2.5kg = approx one 5L caddy  $(250 \times 175 \times 205$ mm)

Feed 2-3 times per week. Use the raking stick to mix in paper & bulking agent. DO NOT mix the entire HOTBIN contents, only what has been added.

harvesting compost





#### **Harvesting Compost and Collecting** the Liquid Fertiliser

- Remove cam strap(s), then use one finger grip on the side of the hatch to pull it away - give it a good tug!
- Use the raking stick or a trowel, carefully remove the compost.
- Collect the fertiliser every 1-2 weeks. The cap needs to be finger-tight only.
- Tip: Prevent compost falling down by removing the core first, leaving the supporting sides to last.



DO NOT leave compost in the base

# adding bulking agent and paper

# bulking agent to maintain aeration



# shvedded papev to balance moisture

#### What is It?

Partially composted woodchip. This creates air spaces in the waste providing bacteria with oxygen to keep composting aerobically.

Dry, hard, woody garden prunings will fullfill the same job if you do not have access to any woodchip.

#### What is It?

Shredded/torn paper or corrugated card helps balance moisture levels. Waste types differ in their moisture levels and if left unbalanced can result in anaerobic bacteria taking over.

Newspaper can be used however it is harder to break down because of its higher lignin content, so expect to find small newspaper balls in your compost.

#### How much water is in waste?

Why it is important to add shredded paper or card

10%	20%	30%	40%	50%	60%	70%	80%		100%
			garden waste		grass	vegetable food peelings waste		salads, cooked food	

# how heat is produced

#### **Speed of Waste Digestion**

Bacteria digest waste types at different speeds. Some are easy to digest, others are hard to digest - this in turn affects the rate of heat release within the HOTBIN.

#### **Understanding the HOTBIN Diet**

HOTBIN works best with a mixture of waste types to provide constant heat production. Feeding HOTBIN is like a human diet, eat a donut for a short burst of energy or a banana for a slower, longer energy release.

#### **Waste Digestion Table**

easy fast nettles, comfrey, grass, blood and bone meal, chicken manure pellets, fruit and vegetable peelings

medium

straw/hay (small amounts)\*, tea bags, coffee grinds, nuts and citrus peel, paper and cardboard

hard slow egg shells, sawdust/woodshavings\* (small amounts), twigs, leaves (shredded) and newspaper

\*Visit HOTBIN help online for specific composting advice

#### **Always Chop Waste**

Chop waste to less than 4cm and shred where necessary. Chopping increases the surface area accessible to bacteria to help speed up the breakdown of waste.

#### CHECK

ALWAYS check the internal temperature before adding

ILY ADD 40-60°c cooked food waste, meat and fish (inc skins), any leftovers including pet food

diseased plant material, biodegradbale cat litter\* (small quantites)

pet bedding and waste\*, small bones and perennial weeds\* (some require 60°c)



# top tips

#### 1. Always Clean Up

Keep the HOTBIN clean, ensure no food waste is left around the base or surrounding area. Wipe around lid, hatch and door edges clearing any loose pieces that may create an imperfect seal. This will help contain odours which may attract vermin.

#### 2. Take Care of Accessories

Keep bulking agent as dry as possible and take care of the HOTBIN accessories.

#### 3. Feed Wisely

Always chop waste to speed up breakdown. Feed a couple of times a week instead of daily to retain heat and give bacteria a chance to digest waste.

#### **Advice for Traditional Composters**

#### 1. Mix Don't Layer

Every time you add waste with paper and woodchip, give it a light mix (not the entire contents) to ensure no layers are formed. Layers cause airflow blockages in the unit.

#### 2. Chop or Tear Rather than Scrunch

Scrunching up card/paper will restrict airflow in the HOTBIN, instead shred or tear.

#### 4. Look After Your HOTBIN

Take care when removing compost or mixing in new waste. Avoid damage when using strimmers, rakes or other garden tools around the unit. **DO NOT** use tools to remove the hatch or force the lid backwards. Keep the valve free of dirt & snow.

#### 5. Fixture Plate

**DO NOT** remove the lid fixture plate, aeration valve or the internal bio-filter.

#### 6. Keep the Heat In

Keep the hatch and lid tightly closed.

Secure the cam strap(s) around the hatch; any gaps in door/lid seals will result in the HOTBIN losing both heat and odours.

#### 3. Accelerators Are Not Needed

As long as bacteria are fed well with a mixture of waste they will produce heat.

#### 4. Don't Add Extra Liquid

Adding more liquid can cause problems in the unit. It is more important to control moisture levels, so please no pre-soaking of card/paper and no weeing in the HOTBIN!

#### The HOTBIN is NOT Rat Proof

Nothing is! Rats can and will chew through almost anything from plastic to concrete. Follow our care advice above to minimise the risk of rodents being attracted to the HOTBIN.

Ensure the HOTBIN is located in an area that hasn't had any recent rat problems and on a solid surface to discourage the underside from becoming a nesting site.



#### Help, My Bin Smells Putrid!

A boiled cabbage odour is normal, putrid smells however can indicate an anaerobic bin. This can affect the top (stage 1) or the whole bin (stage 2). To fix stage 1 mix two handfuls of bulking agent & shredded paper into the top layer, close and leave for 2-3 days. If no change the base layer has likely become anaerobic (stage 2). Seek further advice online or contact us.

#### How Do I Use the Liquid Fertiliser?

Expect up to a mug full (300ml) when draining regularly but please be aware that the amount drained from the HOTBIN will vary from user to user based on the types of waste added in

#### Using the Base Layer

Parts of your first base layer may not fully compost because this is the initial material used to start the unit. Use as mulch or gradually add back into the HOTBIN with fresh waste as per feeding instructions.

#### There are Worms in the Bin?

This is not a bad thing. Brandling worms survive in the cooler base layer but are unable to survive the hot upper layer so you may see them escaping.

#### Can I Compost Grass?

Yes. Grass is very wet/easy to digest waste and will quickly collapse into a slimy mess. Always add the same amount of paper and limit to one (HOTBIN Mini) or two (HOTBIN) mower hoppers worth a week mixed with other types of material.

#### My HOTBIN is over 100 Degrees

Check the reading is in °c and not °f. It is highly unlikely that the HOTBIN will self combust because it is too damp. Bacteria start to die off at 72°c so the temperature is self-regulating to an extent.

#### I Can't Get the HOTBIN Hot

Check valve placement, waste is chopped/shredded and bulking agent/shredded paper ratios. Contents should be lightly mixed (not layered). Ensure thermometer reads °c not °f and take the internal temperature for accuracy in the top 5-10cm of waste only.

#### Can I Add Old Compost?

A handful is useful to start/innoculate the HOTBIN. Anymore offers no benefit as it is already composted and the nutritional value depleted so there is nothing for bacteria to consume and produce heat.

#### Need More Advice? We Are Here to Help!



Call free 0808 168 8499 Mon-Fri, 10am-4pm



Sian up for the free newsletter



Chat on the forum and social media



**HOTBIN** advice on YouTube

HOTBIN has a 3 year manufacturer's guarantee. This excludes damage caused by wildlife and undue care.











