

# BIOLAN



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## BIOLAN ICELETT

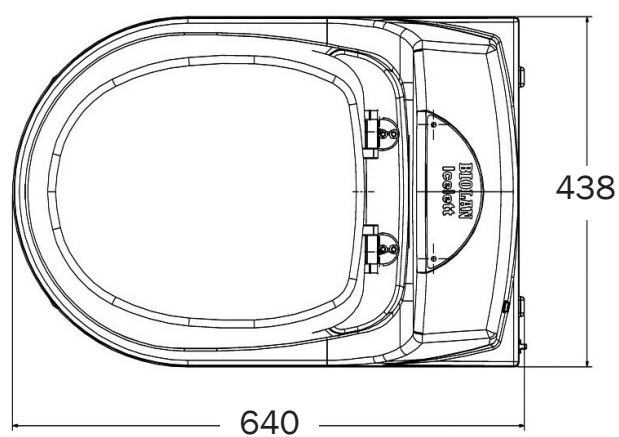
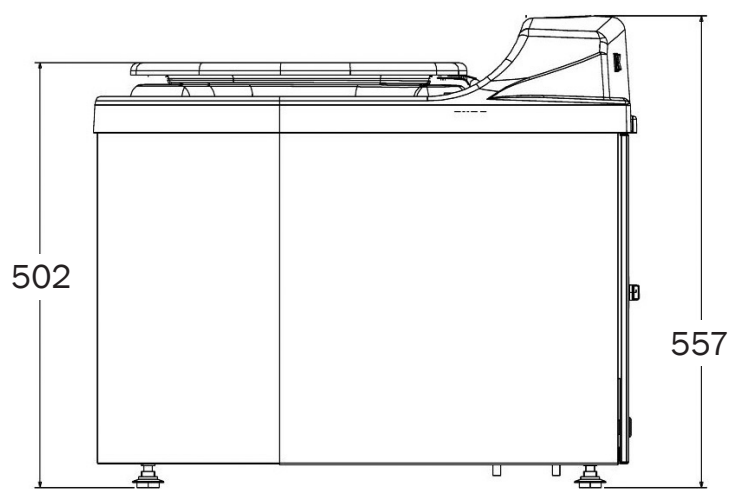
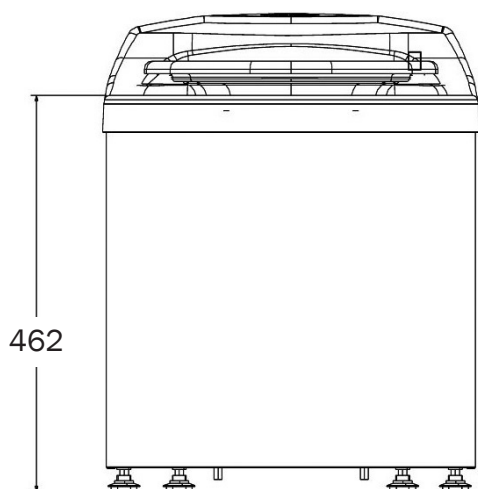
*Instructions for installation, use and maintenance*

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# BIOLAN

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# BIOLAN ICELETT

## Instructions for installation, use and maintenance

*The Biolan Icelett is an odourless, tidy and environmentally friendly toilet. The Icelett is placed on the floor. It requires neither water nor a sewer to operate — just electric power. The operating principle of the unit is to freeze the waste. The unit cools the waste to -15 °C, at which the microbial activity stops. Thanks to the heat lock formed by the condensing air, the Icelett is more pleasant to sit on, and the seat does not feel cold.*

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### Dimensions

length	64 cm
width	44 cm
height	56 cm
sitting height	48 cm
weight	30 kg
size of the inner receptacle	20 litres
length of the power cord	2.20 m
voltage	230 V
fuse	4 A
capacity	60 W
consumption of electricity	at maximum 1.44 kWh/day
included in the delivery	toilet unit and 30 pcs. biodegradable bags

## 1. Planning and installation

When deciding where to locate the Biolan Icelett, make sure it has a supply of electricity and there is sufficient space to use and maintain it (see dimension drawing on page 2). The toilet unit is not attached to either the ventilation system or the sewer. The unit is placed in a level position on the floor. Planning the installation of the toilet unit should also take into account composting of the toilet waste or its disposal in some other way.

### 1.1 Technical specifications

- capacity: for 1–5 people
- dimensions 64 x 44 x 56 cm (d x w x h)
- sitting height 48 cm
- volume of the inner vessel 20 l
- length of the power cord 2.2 m
- weight 30 kg
- voltage 230 V
- output 60 W
- fuse min. 4 A
- maximum consumption of electricity at 1.44 kWh/day
- 

### 1.2 Placing in the toilet space

The unit shall be installed in a warm space indoors. Installation of the toilet unit in a space with floor heating or in the immediate vicinity of a radiator or any other heat source is not recommended. Heat increases the unit's electricity consumption. Optimal room temperature is 10–22 °C. Install the unit in a horizontal position. You can bring the unit to a level position by turning the legs that are provided for this purpose.

**When moved, the unit should be gripped at as low a point as possible. Do not lift the unit by the seat ring.**



1. Signal lights in the front panel: left red, right green.



2. Power switch



3. Adjusting the freezing temperature

## 2. Use and maintenance

### 2.1 Before use

After transportation, wait one hour before starting the unit, in order to allow the oil to return from the pipeline.

- make sure that the unit is horizontally positioned. If necessary, adjust using the adjustable feet of the unit.
- Press the bottom of the bag onto the bottom of the vessel, and fold the edges of the bag over the vessel's rim.
- Position the pail inside the unit. The position of the pail is correct, when the seat ring and the cover close snugly.
- Plug in the unit and turn it on using the switch on the rear wall (Fig. 2) – the green signal light will illuminate.
- The red signal light remains lit until the temperature inside drops to -12 °C, but the toilet can be used immediately. (Fig. 1)

### 2.2 Setting the freezing temperature

The factory setting of the freezing temperature is 3½, and then the unit operates between -14 and -18 °C. Check the setting. If it is not correct, set the thermostat to 3½. Apply the setting using the thermostat (Fig. 3) behind the unit.

### 2.3 What you can put into the Icelett

The Biolan Icelett is intended for composting toilet waste, including toilet paper. Do not put into the unit anything that hampers the composting process, does not compost or is a fire hazard, such as:

- debris, sanitary towels
- chemicals, lime
- detergents, washing water
- matches, ash, cigarette butts

### 2.4 Using bulking material

You do not need to use bulking material in the Biolan Icelett. Adding it during post-composting is sufficient. For visual reasons, bedding material, such as for example Biolan Compost and Toilet Bulking Material or Biolan Peat, can be applied to the deposited matter (see Accessories on page EN-4). On the other hand, using these substances reduces the need to add bulking material during the composting stage.

### 2.5 Emptying

The Biolan Icelett shall be emptied when it fills up. The emptying interval depends on the frequency of use.

*Emptying:*

- Turn the mouth of the bag inside the vessel and lift the vessel out of the unit.
- Compost the waste in a composter for household waste or garden waste.
- To bind liquid, apply litter abundantly to the compost before adding toilet waste.
- Break the surface of the bag using, for example, a pitchfork or a Compostmixer. (see Accessories on page EN-4). Finally, cover with a generous layer of bulking material.
- Check whether ice has formed on the edges of the pail. If necessary, melt the ice and wipe it off. Also dry the walls of the pail before putting a new bag into place.

### 2.6 Cleaning

Clean the Biolan Icelett by wiping with a damp cloth. Any common domestic cleaning agents can be used. Avoid using too much water. You can wash the pail with water, if you first remove it from the unit. Dry the pail before replacing it.

Do not use water for cleaning the rear wall. Vacuum out the dust from the rear wall of the unit at least once a year.

### 2.7 Longer breaks in operation

If you do not use the unit for a long time:

- unplug the unit from the wall outlet
- empty the unit
- clean and dry the freezing basin of the unit and the pail
- leave the seat lid open

### 3. Composting the toilet waste

Waste emptied from the Biolan Icelett always requires composting before it can be utilized.

You can compost toilet waste just as it is or together with garden or domestic waste. While composting, make sure to observe the local regulations on waste handling and consider sufficient protective distances to neighbours, wells and nearby bodies of water.

Organise the composting so that no liquids seep from the compost into the soil. The Biolan Composter, the Biolan Garden Composter or the Biolan Stone Composter (see Accessories on page EN-4) is well-suited to the purpose.

For hygienic reasons, compost the toilet waste for at least a year before applying it to edible plants. Composting for half a year is sufficient before application to ornamental plants. Burying waste in the ground is prohibited.

The micro-organisms in the compost decompose organic matter under aerobic conditions. After the composting has continued for 1–3 years the result will be compost soil. To ensure that the composting is efficient, the living conditions of the micro-organisms must be taken care of. The basic requirements for compost are the presence of oxygen, moisture and nutrients.

The micro-organisms in the compost require moist conditions, so the compost must be suitably moist, but not wet. The toilet waste emptied from the Icelett contains plenty of liquid. Therefore, add Biolan Compost and Toilet Bulking Material to the toilet waste before adding the waste to the composter. This reduces the wetness of the composter (see 2.5 Emptying).

To ensure that the compost is sufficiently airy, use coarse bulking material or branch chaff in layers among the waste. Compost that is too tightly packed or too wet is anaerobic and starts to rot and smell.

Cover the surface of the compost carefully with bulking material, garden waste or peat after the addition of toilet waste. When composting, follow the instructions for the composter that you are using. Toilet waste, composted with care, makes excellent soil conditioner for perennial plants, shrubs, trees and a vegetable plot.

### 4. Problems that may occur

#### 4.1 The unit does not work

Check that:

- the plug is plugged in
- electricity is being supplied to the unit, and the green light in the panel is illuminated
- the power has been turned on with the power switch
- the thermostat stands at 3½.

#### 4.2 The mass does not freeze or is freezing slowly

The mass freezes more slowly, if the number of users and the loading are very high. If the unit has been used normally, check that:

- the room temperature does not exceed +25 °C.
- the unit is not located in the immediate vicinity of a radiator.
- the thermostat stands at 3½.
- the walls of the freezing basin are not covered with an ice layer
- If ice has formed on the walls, empty and thaw the unit manually in accordance with points 2.5 - 2.7 of this manual.

#### 4.3 The running noise of the unit sounds abnormal

Bubbling or hissing noises from the cooling circuit are quite normal sounds from a refrigeration appliance. If the sound is not normal, check that:

- the unit is firmly supported on all four legs
- the unit is not in contact with a water pipe, the wall or any other object

#### 4.4 A red signal light is illuminated in the unit

The red light indicates that the temperature inside the toilet is above -12 °C.

- when the toilet is switched on for the first time, or after a break in operation, a red light remains lit in the unit until the basin's internal temperature reaches -12 °C.

#### 4.5 A green signal light is illuminated in the unit

This does not indicate an emergency. The green signal light only indicates that the power supply to the unit is normal.



While being transported, some compressor oil may have entered the pipeline. Wait one hour before starting the unit, to allow the oil to return from the pipeline.



Please consult your local waste advisor for regulations on composting.  
Please visit [www.biolan.fi](http://www.biolan.fi) for more information on composting.

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### 5. Disposal of the product

When disposing of the Biolan Icelett, take it to a collecting point for refrigerators for orderly dismantling. Always follow the regional and collecting-point-specific instructions.

## Biolan accessories

Availability varies from country to country. Consult your local dealer for details.

### Biolan Compost and Toilet Bulking Material

Biolan Compost and Toilet Bulking Material is a blend made of pure, dried and ground conifer bark and peat for composting and dry toilets. Applying it regularly to the compost keeps the compost mass airy and ensures the composting is efficient and odourless.

Package size: a bag of 40 litres, a bag of 85 litres

Product number: 40170562100, 85170562500

HVAC code: 40 litres 3663112, 85 litres 3663122



### Biolan Peat

Biolan Peat is clean, white non-fertilised or limed sphagnum peat. It is naturally sour. Biolan Peat is suitable for, for example, storing root crop, use as soil conditioner, and use in an evaporating pan for seep liquid.

Package size: a bag of 70 litres

Product number: 55544200



### Biolan Compostmixer

The Biolan Compostmixer is made of glass fibre-reinforced propene, so it neither corrodes nor oxidises even over time. The Biolan Compostmixer offers effortless mixing of the compost.

Product number: 70575200



### Biolan Garden Composter

The Biolan Garden Composter is intended for the composting of domestic, garden and toilet waste in a detached house or a holiday home. Its large, hinged cover makes the filling of the composter easier. The hermetic structure and adjustable air exchange prevent the compost mass from drying, and reduce the need for maintenance.

Product number: green 70572000, grey 70576700



### Biolan Stone Composter

The Biolan Stone Composter is intended for the composting of domestic and garden waste in a detached house or holiday home. Thanks to its large size, it is well-suited to the composting of garden waste and toilet waste from a summer cottage. Biolan Stone Composter having the colour of natural stone merges well with its surroundings, and is well-suited even to small yards.

Product number: red granite 70573100, grey granite 70573200



### Composter Biolan 220<sup>eco</sup> and 550

Biolan Composters are suitable for year-round composting of domestic, garden and toilet waste. The thermal insulation ensures that the Composter continues operating efficiently even during the cold of winter.

Composter Biolan 220<sup>eco</sup>.

Product number: green 70579000, grey 70579200

Composter Biolan 550

Product number: green 70573400, grey 70576600



## About the guarantee

The Biolan Icelett has a guarantee of one year.

The guarantee is valid from the date of purchase and covers possible defects in material and workmanship. The guarantee does not cover any indirect damage.

Biolan Oy retains the right to decide about repairing or replacing damaged parts at its discretion.

Any damage resulting from careless or forcible handling of the device – from failure to observe the operating instructions, or from normal wear – will not be covered by this guarantee.

For matters related to the guarantee, please consult Biolan Oy directly.

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