

# Handling chilled food

**SDX<sup>®</sup> THERMOBOX<sup>®</sup> S****CARE & HANDLING INSTRUCTIONS**

- The food should be chilled to the correct temperature before loading.
- Place the box in the refrigerating chamber well in advance of loading.
- The eutectic plate should be completely frozen.
- Load the box with food and eutectic plate in refrigerated room (+2°C).
- Do not handle chilled food in warm conditions!
- Use a tight-fitting lid to avoid spillage in the box.

- Avoid putting the box in direct sunlight or overwarm conditions.
- Clean after transportation. Wash, rinse and dry out the equipment.
- Do not use a high-pressure washing appliance or mechanical washer!
- Use a cleaning agent that is suitable for equipment for food.

**S = insulated**

**SDX<sup>®</sup> THERMOBOX<sup>®</sup> C****CARE & HANDLING INSTRUCTIONS**

- The food should be chilled to the correct temperature before loading.
- Place the box in the refrigerating chamber well in advance of loading.
- You can even chill the box by using the integrated refrigerating unit.
- Load the box with food in refrigerated room (+2°C).
- Do not handle chilled food in warm conditions!
- Use a tight-fitting lid to avoid spillage in the box.
- Avoid putting the box in direct sunlight or overwarm conditions.

- The box should be connected to a 230 V AC, earthed socket. Insulation grade IP44.
- Output 245 watts, amperage 1.1 amps.
- Clean after transportation. The box must not be connected to the mains during the cleaning process! Wash, rinse and dry out the equipment.
- Do not use a high-pressure washing appliance or mechanical washer!
- Use a cleaning agent that is suitable for equipment for food.
- Do always use original cable set.

**C = active refrigeration**

## Refrigeration

Temperature between +8°C and + 60°C is critical due to the risk of bacterial growth.

When chilled food is stored for several days, it is especially important for the temperature of the food to be kept below +4°C but above +/- 0°C.

When chilling food, Blast-Chillers or similar equipment should be used to achieve an efficient and controlled refrigerating process.

## Storage and transportation

Before transportation and loading into boxes, chilled food should be stored in a refrigerating chamber that maintains a temperature of +2-3°C. **Do not handle chilled food in warm conditions!** An uninterrupted chill chain will extend the time available for transportation and storage.

Food which is to be served within a short period of time can be kept at a higher temperature. (See instructions issued by the National Food Administration).

## We can offer two different solutions for handling chilled food:

1. SDX® THERMOBOX® S with SDX® Eutectic plate
2. SDX® THERMOBOX® C with active refrigeration

The following applies to both alternatives:

- the boxes must be chilled before loading.
- the food must be at the correct temperature when loaded.

## SDX® THERMOBOX® S is an insulated box in our standard design.

For best results, the box should be placed in a refrigerating chamber (+2°C) well in advance of transportation to allow the box to become really cold. To guarantee the food temperature, the box should be loaded in the refrigerating chamber with the chilled food, including the frozen eutectic plate, for further transportation to each reception point.

The advantages of this solution are that the eutectic plate provides refrigeration throughout the melting process. Once the refrigerant contained in the plate has melted, the food will start to warm up.

- The eutectic plate is effective for an interval of 2-4 hours and, consequently, active during transportation as no electrical connection is required.
- The cost of investing in a transport box is low. However, efficient equipment for freezing and handling eutectic plates on a daily basis is required.
- A refrigerating chamber is required in the reception kitchen if the food is to be served at a later stage.

## SDX® THERMOBOX® C is a well-insulated box with approximately 40% superior insulation.

For best results, the box should be placed in a refrigerating chamber (+2°C) well in advance of transportation to allow the box to become really cold. You can even chill the box by using the integrated refrigerating unit.

To guarantee the food temperature, the box should be loaded in the refrigerating chamber with the chilled food for further transportation to each reception point.

The advantages of this box are that it is extremely well-insulated and equipped with a refrigerating unit for active refrigeration. It offers the user many new opportunities for organising the production and distribution of food.

- After loading and connection, the box can be stationed outside the refrigerating chamber until transportation can take place to each reception point.
- The food is kept chilled throughout the period that the box is connected to the mains.
- During transportation, when the box is not connected to the mains, no refrigeration is created. A slow warming up process takes place throughout transportation. The extent of this depends on the ambient temperature. To resist this process, we have lined the box with extra substantial insulation. (If transportation is over a long period of time and the ambient temperature is high, refrigeration can of course be boosted using the eutectic plate).
- On arrival at its destination, the box should be connected to the mains as soon as possible.

## A large number of opportunities for rationalising production and transport are available with SDX® THERMOBOX® C.

For example:

- Food for several days can be transported at the same time without jeopardising the quality of the food.
- Investment in refrigerating chamber facilities in the reception kitchen can be reduced or eliminated.
- Food can be produced more efficiently due to the fact that the week's menus can be planned without having to take fully into consideration the time when the meals are to be served.

## Handling food for sandwiches and buffets with SDX® THERMOBOX® C.

Food which is to be served cold can be kept with advantage in an SDX® THERMOBOX® C. To ensure the food has a good flavour when served, it needs to be kept at a temperature that is not too low. If specified when the order is placed, SDX® can control the temperature in the box at +4-6°C.

## Premises and handling

To achieve good results, the premises in which the boxes are organised must have a controlled temperature environment not exceeding + 23°C.

The excellent insulation of the boxes means that the unit works extremely energy-efficiently (245 watts for AA150). This output is, however, conveyed into the premises in the form of thermal energy. With a large number of boxes in a small area, this may be a factor to take into consideration when deciding on an appropriate ventilation system for the premises.

Position the boxes so that air can circulate freely around the fan at the back of the unit!

## Cleaning

The boxes can be rinsed out but not with high-pressure equipment!

Avoid aiming the jet of water directly at the fan!

Good results can be achieved using standard washing-up detergents suitable for use with food receptacles and a “shower nozzle”.

Tight-fitting lids on the containers facilitate cleaning and reduce the risk of spillage in the box.

## Evaluation and choice of handling system

The quality of the food is determined by the conditions that develop (or have developed) as the premises, equipment and organisation are all important factors. The temperature is an important quality factor. SDX® specialises in temperature maintenance during transportation. We, or some of our dealers, can usually lend or hire out boxes for potential customers to conduct a serious evaluation of the units, thus offering an excellent opportunity for testing the equipment in the appropriate environment, i.e., where it is to be used. By measuring the temperature of the food from loading to unloading, any weaknesses in the temperature chain, and the means with which to prevent them, can be discovered.

## Equipment purchase, hiring or leasing

Equipment can be purchased from some of the dealers listed on our website: [www.sdx.se](http://www.sdx.se)

You can also lease equipment from SDX®. A leasing agreement through SDX®, combined with a service agreement, will give you access to the latest technology for distribution and secure operation without the necessity for major investment.

For occasional needs or to test the equipment, you also have the option of hiring equipment from SDX®.

## Environmental considerations

SDX® is certified in accordance with ISO 14001:2004 and ISO 9001:2000.

We place a great deal of emphasis on choosing materials with good resources efficiency. Long life is of the highest priority.

For a product which is designed to be in daily use for food distribution, over the following 10-15 years, the use chemicals for cleaning purposes is also of great importance to us. This is why we have put a great deal of energy into making the boxes easy to clean by developing a range of stainless steel components.

We recommend that our customers and users take measures to reduce the risk of food spillage in the box. This will facilitate cleaning and reduce the need for chemicals. Use tight-fitting lids for food distribution!

Energy consumption is also an important consideration. By choosing polyurethane insulation, which connects the outer and inner walls without the need for thermal bridges, we have created the right conditions for low energy consumption. To ensure the box is not connected to the mains for an unnecessarily long period of time, we recommend connecting the box to a socket fitted with a timer.

By using a timer, you can ensure the box is chilled when it is about to be used without it having to be kept on “for safety’s sake”.

The AA-150 refrigerating unit works via Peltier technology, in other words, a thermoelectric pump. There is no risk of any refrigerant leaking out and damaging the environment. Having only a small number of moving parts means that there are few components that can become worn out, a benefit to the environment as well as one’s finances.

**So, help us to save the environment by using:**

- Tight-fitting lids
- A timer

## Service

Regular servicing is important for problem-free use. The equipment used for transportation is more exposed than other equipment. This is why it is important for you to check for any damage which might affect safety and functionality on a daily basis.

## Regular inspections

We recommend regular and systematic maintenance of the boxes.

We suggest conducting your first service after 6 months. Guided by this, a decision can then be made concerning future maintenance work.

Maintenance can be organised under your own personal management or by setting up a service agreement with a firm you know you can rely on. SDX® can offer essential support.

## When conducting maintenance work, the following measures should be taken:

### Refrigerating unit

- The box should not be connected to an electrical outlet when conducting service work!
- Disconnect and remove the refrigerating unit.
- Clean fans and cooling flanges. Vacuum and clean with a soap solution.
- Check flanges, fans and cables.
- Replace damaged components. (see list of replacement parts)

### Power supply unit

- Open the cover of the power supply unit. Vacuum fan and vent hole. Do not use water or chemicals to clean the power supply unit.
- Check incoming cable, cable restraint and plug.
- Check cables and connections.
- Check earth connection between the plug’s earth plate (earthed pin), the power supply unit’s chassis and connection encapsulation.
- Replace damaged components. (see list of replacement parts)

### Miscellaneous

- Check wheels and brakes.
- Check door seals.
- Check and lubricate lock and hinges.
- Replace damaged components. (see list of replacement parts)

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