

# Insulated pallet containers

1971 *40* 2011  
years

**BORGARPLAST**

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# Highly-insulated pallet containers (PUR insulated)

High-insulation pallet containers are suitable where high insulation demands are made, for example when no cooling equipment is available or in conditions where temperature is either very high or very low. The high-insulation pallet container will keep the content at a stable temperature or, when needed, at temperature as low as approximately -18°C.

A high-insulation pallet container is an especially good option for storing fresh fish or other products on ice or liquid ice in order to maintain its initial quality and thus maximize its value. We recommend using ice made from fresh water, because sea water ice can make the contents freeze. The appropriate amount of ice depends

on conditions such as temperature and intended storage time. The general rule is that approximately 30 to 40% of the content should be ice. This, however, depends on external conditions.

The high-insulation type is lighter than the heavy-duty type and is therefore preferable where containers need to be moved manually.

The polyurethane (PUR) foam insulation between the PE walls of the container is the key to the insulating properties of the high-insulation type. The average density of insulation is 43 g/l (kg/m<sup>3</sup>). Thermal conductivity ( $\lambda$ ,  $\lambda$ ) is approx. 0.023W/mK.

## 300, 350



| Size | external measurements |             |            |             | Weight (kg) | Container order no. | Lid order no. |
|------|-----------------------|-------------|------------|-------------|-------------|---------------------|---------------|
|      | Capacity (litres)     | Length (mm) | Width (mm) | Height (mm) |             |                     |               |
| 300  | 255                   | 910         | 710        | 680         | 26          | 20156               | 20178         |
| 350  | 322                   | 920         | 760        | 730         | 29          | 20157               | 20183         |

allowed deviation  $\pm 1\%$

Sizes 300 and 350 are normally used on board smaller boats or wherever space is restricted. These types of containers are commonly used for iced fresh fish on board boats, for pickling, and for storage of chilled food in the meat industry. The containers can be moved by a standard hand pallet jack and a forklift truck from all four sides. Filled with water, the containers can be stacked up to four containers high.

## 450



| Size | external measurements |             |            |             | Weight (kg) | Container order no. | Lid order no. |
|------|-----------------------|-------------|------------|-------------|-------------|---------------------|---------------|
|      | Capacity (litres)     | Length (mm) | Width (mm) | Height (mm) |             |                     |               |
| 450  | 430                   | 1170        | 810        | 690         | 35          | 20158               | 20182         |

allowed deviation  $\pm 1\%$

Size 450. This is a Euro-standard size, compatible with the ISO 6780 international transportation standard. Size 450 offers the highest level of insulation of all Borgarplast high-insulation range for capacity below 930 litres. This container can be moved by a standard hand pallet jack and a forklift truck from all four sides.

## 460, 660



| Size | external measurements |             |            |             | Weight (kg) | Container order no. | Lid order no. |
|------|-----------------------|-------------|------------|-------------|-------------|---------------------|---------------|
|      | Capacity (litres)     | Length (mm) | Width (mm) | Height (mm) |             |                     |               |
| 460  | 430                   | 1220        | 1030       | 580         | 41          | 20159               | 20186         |
| 660  | 630                   | 1220        | 1030       | 750         | 51          | 20163               | 20186         |

allowed deviation  $\pm 1\%$

Sizes 460 and 660. Size 660 is the most popular of all Borgarplast pallet containers. Size 460 is, however, becoming increasingly popular among quality food producers. The reason for this is its 150 mm lesser internal height, which reduces pressure on the content next to the bottom. Both sizes are accessible by a hand pallet jack from two sides and by a fork lift truck from all four sides. Sizes 460 and 660 are stackable on the top of each other either with lid or without it.



| 1000, 1010 | Size | Capacity<br>(litres) | external measurements |               |                | Weight<br>(kg) | Container<br>order no. | Lid<br>order no. |
|------------|------|----------------------|-----------------------|---------------|----------------|----------------|------------------------|------------------|
|            |      |                      | Length<br>(mm)        | Width<br>(mm) | Height<br>(mm) |                |                        |                  |
|            |      |                      | 1500                  | 1200          | 890            |                |                        |                  |
|            | 1000 | 960                  | 1500                  | 1200          | 890            | 86             | 20170                  | 20194            |
|            | 1010 | 930                  | 1470                  | 1170          | 880            | 86             | 20173                  | 20193            |

allowed deviation  $\pm 2\%$



Sizes 1000 and 1010. These sizes are used extensively in salt fish processing, transportation of fish, salmon harvesting, and marinating of shrimps as well as by super market chains for salting of ham. Size 1010 is an adaptation of size 1000 to the DC and HC transportation sea container specifications. Its modified design enables 15-20% more pallet containers to be stored in a transportation container, resulting in substantial savings on transportation costs, which is especially valuable when transporting to distant markets. This container is accessible by a hand pallet jack from two sides and a fork lift truck from all four sides.

| 1400 | Size | external measurements |                |               |                |                |                        |                  |
|------|------|-----------------------|----------------|---------------|----------------|----------------|------------------------|------------------|
|      |      | Capacity<br>(litres)  | Length<br>(mm) | Width<br>(mm) | Height<br>(mm) | Weight<br>(kg) | Container<br>order no. | Lid<br>order no. |
|      |      | 1250                  | 1990           | 1170          | 880            | 120            | 20176                  | 20196            |

allowed deviation  $\pm 1\%$



Size 1400. The tuna container. This is the largest insulated pallet container on the market with 70 mm (average) thick PUR insulation. It is especially suitable for use in warm climates and for storing large fish, e.g. tuna and swordfish. The size of the container is also suitable for many kinds of fish processing, such as salting and curing as well as the storage of meat and various other types of food. The container is accessible by a hand pallet jack from two sides and by a fork lift truck from all four sides.

| ISOP 400, 600, 700 | Size     | Capacity<br>(litres) | external measurements |               |                | Weight<br>(kg) | Container<br>order no. | Lid<br>order no. |
|--------------------|----------|----------------------|-----------------------|---------------|----------------|----------------|------------------------|------------------|
|                    |          |                      | Length<br>(mm)        | Width<br>(mm) | Height<br>(mm) |                |                        |                  |
|                    |          |                      | 1200                  | 1000          | 570            |                |                        |                  |
|                    | ISOP 400 | 400                  | 1200                  | 1000          | 570            | 41             | 20240                  | 20188            |
|                    | ISOP 600 | 600                  | 1200                  | 1000          | 750            | 51             | 20260                  | 20188            |
|                    | ISOP 700 | 700                  | 1200                  | 1000          | 860            | 55             | 20270                  | 20188            |

allowed deviation  $\pm 1\%$



Sizes 400, 600 and 700. These models are our new range of pallet containers, designed to meet the transportation requirements of the future. They conform to the the ISO 6780 international transportation standard in all respects and are accessible by a hand pallet jack and a forklift truck from all four sides. Sizes 400, 600 and 700 are stackable on the top of each other either with lid or without it.

| Collection containers | Size | Capacity<br>(litres) | external measurements |               |                | Weight<br>(kg) |
|-----------------------|------|----------------------|-----------------------|---------------|----------------|----------------|
|                       |      |                      | Length<br>(mm)        | Width<br>(mm) | Height<br>(mm) |                |
|                       |      |                      | 1200                  | 1000          | 615            |                |
|                       | 400  | 400                  | 1200                  | 1000          | 615            | 55             |
|                       | 460  | 420                  | 1220                  | 1030          | 625            | 55             |
|                       | 600  | 600                  | 1200                  | 1000          | 790            | 65             |
|                       | 660  | 630                  | 1220                  | 1030          | 790            | 65             |

allowed deviation  $\pm 1\%$



These containers have been used for collecting liver (for melting), dead fish (salmon), dead chicken as well as waste from slaughterhouses and fish processing plants. Users also include pet food producers among others. The containers most commonly used for these purposes are in sizes 400/460 and 600/660.

These containers are completely water- and airtight. The lids, fitted with the upper part of a herring barrel (including lid), are soldered to the containers. The container is filled through the herring barrel lid and emptied by 180° rotation of the container by a fork lift truck. Sometimes small fishing vessels use these containers filled with slush.



# Heavy-duty pallet containers (PE insulated)

Heavy-duty pallet containers are widely recognised as the strongest insulated pallet containers made from plastic on the market. They are suitable where there is a high demand for strength and carrying capacity, e.g. for heavy and/or long, steady loads. They are 25-30% heavier than the high-insulation type.

Because of their special properties, heavy-duty containers are especially recommended for use in the processing, storage and transportation of meat and poultry, as well as in salt fish processing, marinating of shrimp and elsewhere in the fishing industry. They are made of one material throughout and are therefore recyclable. They

are completely solid, which prevents them from collecting impurities. Their smooth and curved surface is easy to clean and drainage holes boost hygiene even further.

The insulating properties of PE insulated pallet containers are considerably lower than those of the PUR insulated type, making them more suitable to use where cooling equipment is available. On the other hand, being made of PE throughout, means that heavy-duty pallet containers are extremely steady.

| 460 E, 660 E | Size  | Capacity<br>(litres) | external measurements |               |                | Weight<br>(kg) | Container<br>order no. | Lid<br>order no. |
|--------------|-------|----------------------|-----------------------|---------------|----------------|----------------|------------------------|------------------|
|              |       |                      | Length<br>(mm)        | Width<br>(mm) | Height<br>(mm) |                |                        |                  |
|              |       |                      |                       |               |                |                |                        |                  |
|              | 460 E | 420                  | 1220                  | 1030          | 580            | 51             | 20559                  | 20186            |
|              | 660 E | 630                  | 1220                  | 1030          | 750            | 65             | 20563                  | 20186            |

allowed deviation  $\pm 1\%$



Sizes 660 and 460 are identical to the same sizes of the high-insulation type, except that they have PE foam insulation. Sizes 400, 600 and 700 are stackable on the top of each other either with lid or without it.

| HD 400, 600, 700 | Size | external measurements |             |            |             |             |                     |               |       |
|------------------|------|-----------------------|-------------|------------|-------------|-------------|---------------------|---------------|-------|
|                  |      | Capacity (litres)     | Length (mm) | Width (mm) | Height (mm) | Weight (kg) | Container order no. | Lid order no. |       |
|                  |      | HD 400                | 400         | 1200       | 1000        | 580         | 51                  | 20658         | 20188 |
|                  |      | HD 600                | 600         | 1200       | 1000        | 740         | 65                  | 20676         | 20188 |
|                  |      | HD 700                | 700         | 1200       | 1000        | 850         | 70                  | 20687         | 20188 |

allowed deviation  $\pm 1\%$



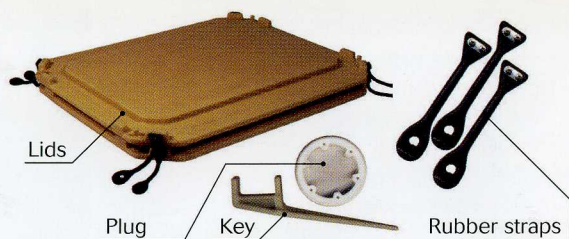
Sizes 400, 600 and 700 are our new range of pallet containers. Sizes 400, 600 and 700 are also available with high-insulation.

These types are designed with future transportation in mind, completely conforming to the ISO 6780 transportation standard. They are accessible by a hand jack and a fork lift truck from all four sides. Sizes 400, 600 and 700 are stackable on the top of each other either with lid or without it.



# Accessories

## Lids



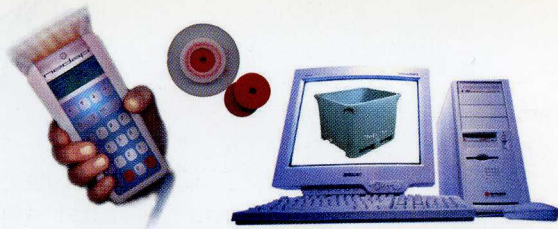
All Borgarplast containers can be fitted with lids, which are insulated with Polyurethane (PUR). Lids are fastened to the containers with strong rubber straps, which are resistant to ultraviolet light (UV), but are not considered fully watertight. Completely filled containers with lids are stackable on top of each other.

## Compaction lock



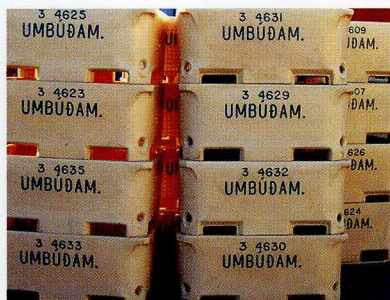
Compaction locks are used for keeping the product beneath the surface of liquid in the container, e.g. during salting or pickling. Compaction locks fit into containers sizes 400, 600, 700, 460 and 660.

## ID containers



RF (radio frequency) ID containers have embedded microchips, which are either programmable or have fixed serial numbers. Data in ID containers can be read into computers using hand scanners or scanners installed in forklifts or conveyor belts. A wide selection of software is available for managing the entire production process using ID containers at all stages from the slaughterhouses to value added processing. ID containers offer enhanced security and automation of the production process.

## Marking and logos



If containers need to be labelled, three main methods are employed:

1. Lettering is milled into one or two sides of the container, representing a name abbreviation and/or number. This is a permanent form of labelling. The lettering is coloured with a felt-tip pen, which needs to be renewed at several months intervals. This is the most economical and simplest method.
2. Silk screen printing on one or two sides, lettering or logo. The option of one colour is offered. Running serial numbers must be milled. Silk screen can withstand washing with water if a very stiff brush is not used.
3. Mould-in graphics. Lettering and logo. The customer can choose from two to three colors. Running serial numbers must be milled. This is a more permanent method than silk screen, but relatively expensive, especially on a small scale.



# Taking Care of Containers

If the wall of a container is damaged, for some reason, the container should immediately be put aside for repair. Failure to do so can result in the container becoming completely useless in a short period of time. If the insulation between the PE walls becomes saturated with liquid, it will add considerably to the weight of the container and it might be difficult to get the liquid out of the insulation again. The container is repaired with plastic extrusion welding equipment using superheated air (ca 250 °C) and Polyethylene welding rod (HDPE), but under no circumstances, an open fire can be used. New containers can be stacked fully

loaded into various levels. A number of containers can thus be stacked, but the risk of damaging the containers at the bottom of the stack increases in direct proportion to the number of containers stacked. If too much strain is put on the bottom container the whole stack can collapse, which may cause injuries to people nearby. While there is no universal rule of how many containers can be stacked, one should always consider factors like the weight of the content, and the age and the condition of the containers in each individual case, and utmost care should always be taken when stacking containers. A moderate

number of containers stacked, good care, and a regular maintenance makes the containers last considerably longer.

Most synthetics do not endure very low temperatures and under such circumstances, Polyethylene can become very fragile. Therefore synthetic containers should be used with care at very low temperatures, e.g. in freezer stores. Synthetic containers should not be used for freezing fish or food consisting of any liquid since the expansion of the liquid when freezing may damage the inner walls of the container.

## Company profile



Founded in 1971 Borgarplast has always operated in the manufacturing industry, mainly involving products made from synthetics, polyethylene and polystyrene. Borgarplast defines itself as a manufacturer of containers and packages for the food industry, especially for the transportation of fresh food.

Borgarplast began exporting its products in 1986 and the main export item is the insulated pallet containers of various types. Borgarplast's factories are very well equipped with a high production capacity.

Borgarplast's quality system was certificated to the ISO 9001 standard in 1993, the company being the first Icelandic industrial manufacturing company to achieve this recognition. Borgarplast also became the first Icelandic company to receive certification to the international environmental standard ISO 14001 in 1999, and was one of the first 6000 companies in the world to do so. Over the years the company has earned awards for many aspects of its operations including technological innovation, environmental awareness and employee facilities and safety.



ISO-certificated  
Quality System since 1993



ISO-certificated  
Environmental Management  
System since 1999

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