



Technical Specifications of the Product

Cellar 200x175

Natural Fridge®



Product Manufacturer BPR-PLASTECH LIMITED LIABILITY COMPANY, Poland, VAT PL9662114813

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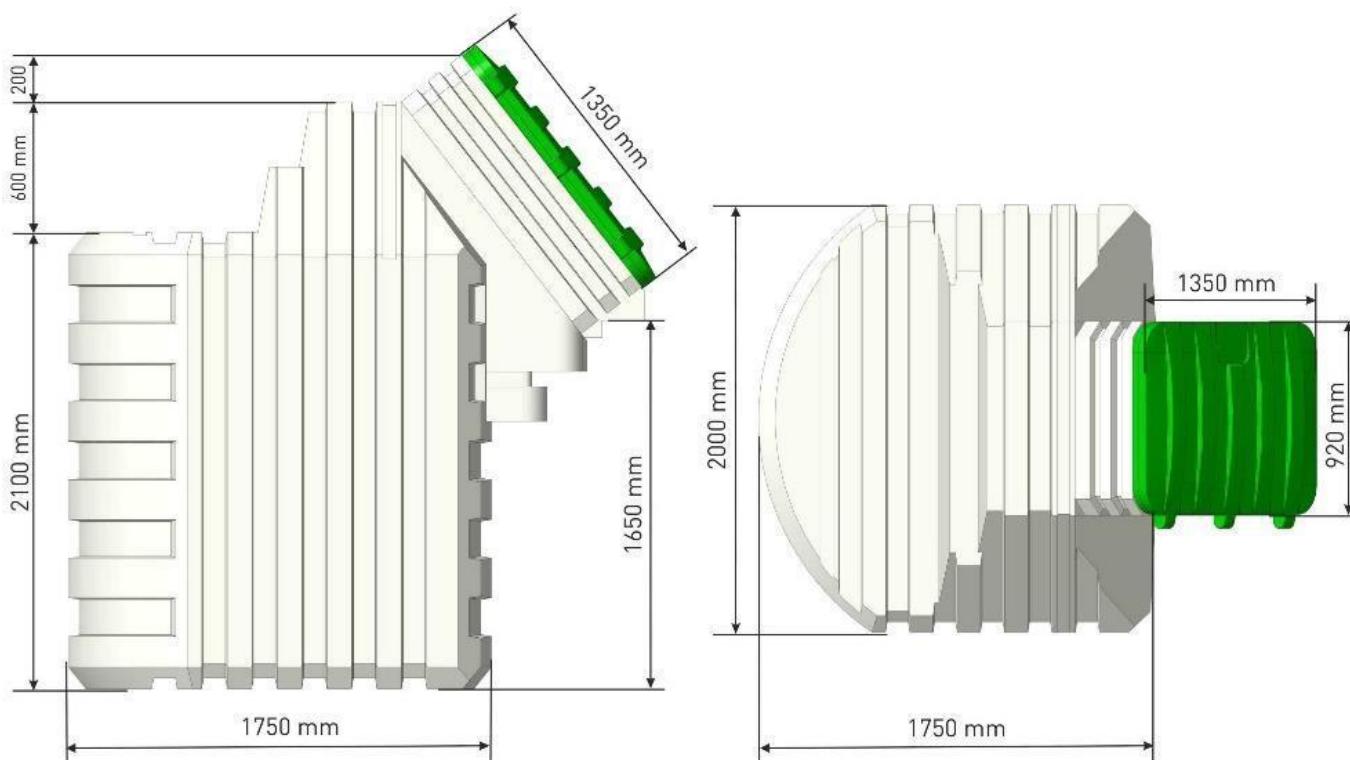
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This technical card contains a description of the basic technical features of the Natural Fridge 200x175 cellar made of plastic with a side entrance, as well as its method of installation and use.

Plastic cellars are intended for storing vegetables, fruits, liquids, beverages, and various types of food in packaging. The cellar is delivered ready to be embedded in the ground. The cellar is made of food-grade polyethylene as a monolithic structure in rotomoulding technology. It does not require additional sealing.



Dimensions 200x175 cm, Height 270 cm,

Volume 6.5m³, Weight 825 kg,

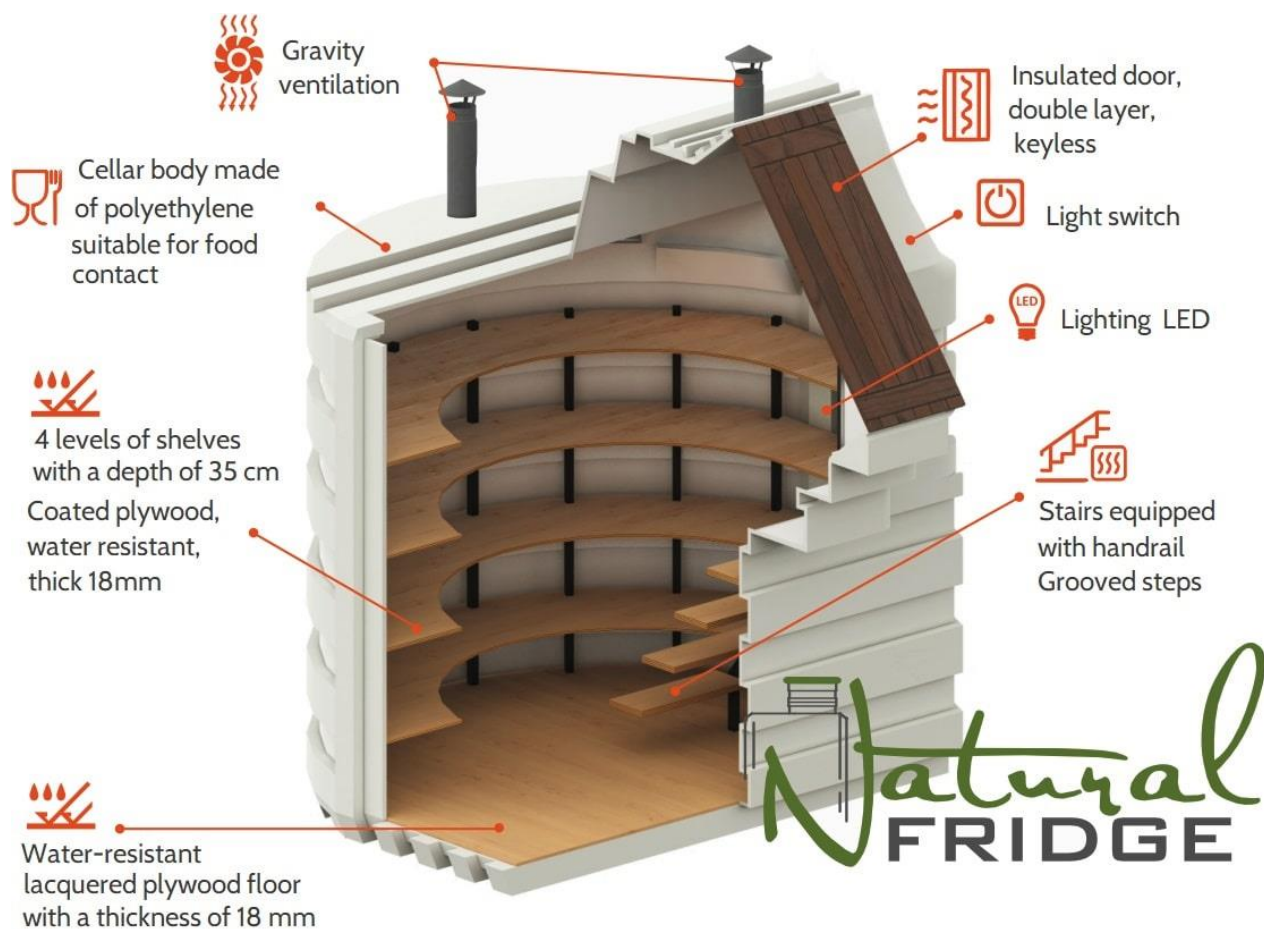
Door dimensions 90x130 cm, Shelf width 27-39 cm, Shelf area 5.1 m²

Dimensions may vary by $\pm 3\%$ due to different shrinkage of polyethylene.

Equipment

Interior equipment:

1. Shelves made of waterproof plywood - 4 rows
2. Floor made of waterproof plywood
3. Stairs - 1 pc
4. Supply ventilation - 1 pc
5. Exhaust ventilation - 1 pc
6. Double cover (flap) - 1 pc
7. LED Lighting - 1 pc,
8. Weather station - 1 pc.





Installation and operation manual

The cellar body is made of food-grade polyethylene reinforced with ribbing. Inside the cellar, a strong steel frame is installed, which also serves as reinforcing ribbing for the body. The object does not require additional sealing and protection against corrosion.

The lower part of the cellar should be buried at a depth of about 165 cm below the ground surface. At such depth, very large soil pressure forces act on the cellar body. These forces can be even higher in the case of high groundwater levels or in the case of clay soils, which may move during freezing. Therefore, the installation of the cellar must be carried out in accordance with these instructions. Thanks to this, the aesthetic and practical cellar will serve for many years.

Before starting the installation of the cellar, it is necessary to determine the groundwater level and the type of soil on site.

Required materials

Materials needed for the installation of the Cellar 200x175:

- Semi-dry (dry) ready-mix concrete B15-B25, 4-5 m³.
- Reinforcement bars 10-12 mm, 30 m.
- Styrofoam for foundation insulation with a thickness of 5 cm - 20-24 sheets.
- Underground cable 2x2.5mm² or 2x4mm² - from the cellar to the connection point of the power supply to the 220V network.
- It is recommended to use a polyethylene pipe with a diameter of 20mm for the underground cable.
- Synthetic straps with a permissible load of 4 tons and a length of 7 m - 2 pieces or steel cables in a polymer sheath with a minimum diameter of 12 mm and a minimum length of 7 m - 2 pieces.

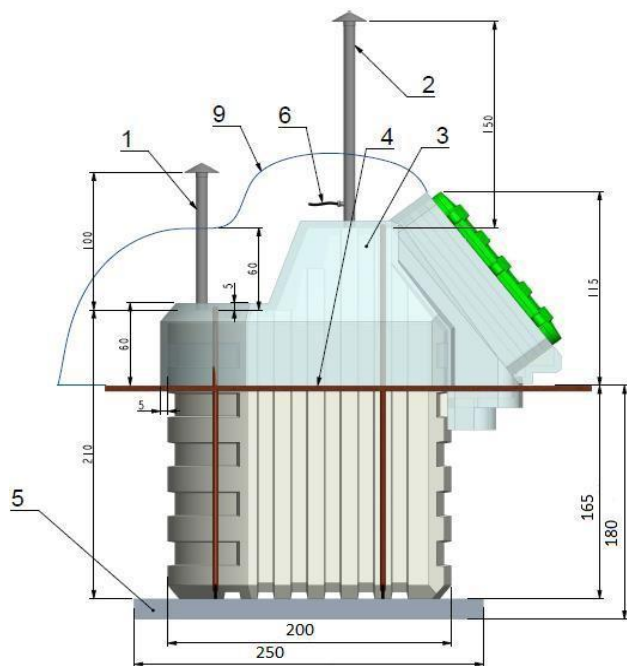


Excavation dimensions

The dimensions of the excavation for the cellar installation should be 20 cm larger than its width and length around the entire perimeter - at least 240 x 220 cm at the bottom part. The depth of the excavation should be 175-180 cm, so that after placing the cellar on a concrete slab or dry concrete substrate, the lower edge of the hatch cover is located 5-10 cm above the ground level. This is to prevent rainwater or meltwater from getting inside the cellar. The walls of the excavation should be vertical and maintain the correct dimensions throughout their height. This will greatly facilitate the construction of cellar walls with dry concrete.

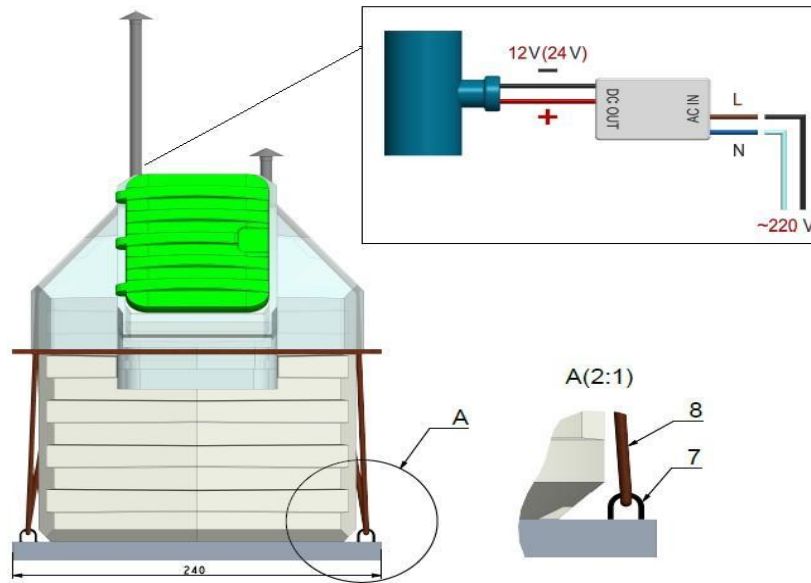
Installation

In sandy soils and at a low groundwater level (at least 1.5 m below the surface), the installation of the cellar on a layer of dry concrete 10-15 cm high with reinforcement is allowed. In clay soils or at a high groundwater level, a reinforced concrete slab with a minimum size of 240 x 220 cm and a thickness of 15 cm, containing handles for straps, should be made at the bottom of the excavation.



Diagram

1. Intake pipe
2. Exhaust pipe
3. Styrofoam insulation
4. Ground level
5. Concrete slab
6. LED power cable
7. Strap handles
8. Straps
9. Earth mound



We place the cellar on a previously poured concrete slab at the bottom of the excavation and secure it with straps (not included in the equipment). The cellar should be centered on the concrete slab. Then we secure it to the slab with straps or rope and surround it with dry concrete from every side. Each layer, 30-40 cm in height, should be moistened with water so that the dry concrete hardens faster. The body of the cellar should be surrounded with dry concrete to a height of 0.6-1 m from the bottom. Then the cellar is covered with sand.

The thickness of dry concrete around each cellar wall should be at least 20 cm.

Installation of the top part

To reduce temperature fluctuations inside the cellar, it is recommended to use thermal insulation material (extruded polystyrene - foam board) with a thickness of 5-10 cm (Styrodur or similar) on the top part of the cellar (side entrance surfaces and the top surface of the cellar body), as well as around the chimney and side surfaces of the cellar body to a depth of 60 cm from the top plane of the cellar body. Thermal insulation should be covered with geotextile.

Ventilation pipes must be extended by 50 cm above ground level for the inlet pipe (which supplies air to the lower part of the cellar) and 100-150 cm for the exhaust pipe (removes air from the upper part of the cellar) and equipped with ventilation caps (they are included in the cellar set).

In winter, at very low temperatures (below $-20\text{ }^{\circ}\text{C}$) and in summer during heat waves (above $+30\text{ }^{\circ}\text{C}$), it is necessary to limit the flow of cold and warm air (close the air supply). It is also recommended to insulate the exhaust pipe (to avoid condensation in the pipe).



Attention

During the backfilling of the cellar body with soil, it is forbidden to use construction machinery within a distance of less than 1 m from the body. Vehicle movement within a distance of less than 1 m from the cellar along its entire perimeter is prohibited.

Within a few weeks after installation, the polyethylene walls of the cellar will be pressed against the frame and shelves of the cellar by the pressure of the soil, and at greater distances between the frame elements, the walls may slightly bend inwards. In case of large temperature differences, some condensation may appear on the entrance doors or walls. The condensation evaporates after some time and does not need to be specifically removed. At very low temperatures, frost may appear on the inside of the entrance flap. If this phenomenon occurs frequently, it is recommended to insulate the door from the inside with insulating foam.

Warranty Conditions

During the warranty period, the buyer has the right to free repair of the product due to manufacturing defects.

The warranty covers the operation of fittings, the quality of food-grade materials, the floor and shelves, as well as mechanical and welded connections.

The manufacturer's warranty is limited exclusively to manufacturing defects and does not cover the following cases:

- Normal wear and tear of all parts and components, natural aging, as well as damage to paint and surfaces caused by normal use and environmental influences, including aggressive substances in the atmosphere, industrial pollutants, chemicals, plant juices, stones, salt, etc.
- Minor geometric deviations that do not affect the quality of the plastic cellar or its components (e.g., slight deviations from the structural dimensions specified in this product passport due to the properties of rotationally molded parts);



- Damage caused by natural disasters, fires, domestic factors, and other force majeure cases;

- Damage caused by third-party actions, including during delivery or installation of the product, which were carried out contrary to the installation instructions for the plastic cellar;

- Damage and deformations of products caused by changes in geometric dimensions after the completion of installation works and modifications of the product;

- In case of corrosion caused by scratches and paint chips from the frame and various parts and connections.

The warranty becomes void if the product is repaired or an attempt to repair is made by persons (companies) without prior consultation with the manufacturer.

Warranty period: 24 months.

For some components (weather station, LED lighting) a warranty is provided for a period of 1 year.

Expected lifespan: at least 50 years.

Product Manufacturer

BPR-PLASTECH LIMITED LIABILITY COMPANY

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