



Product Technical Data Sheet

Cellar 250

Natural Fridge®



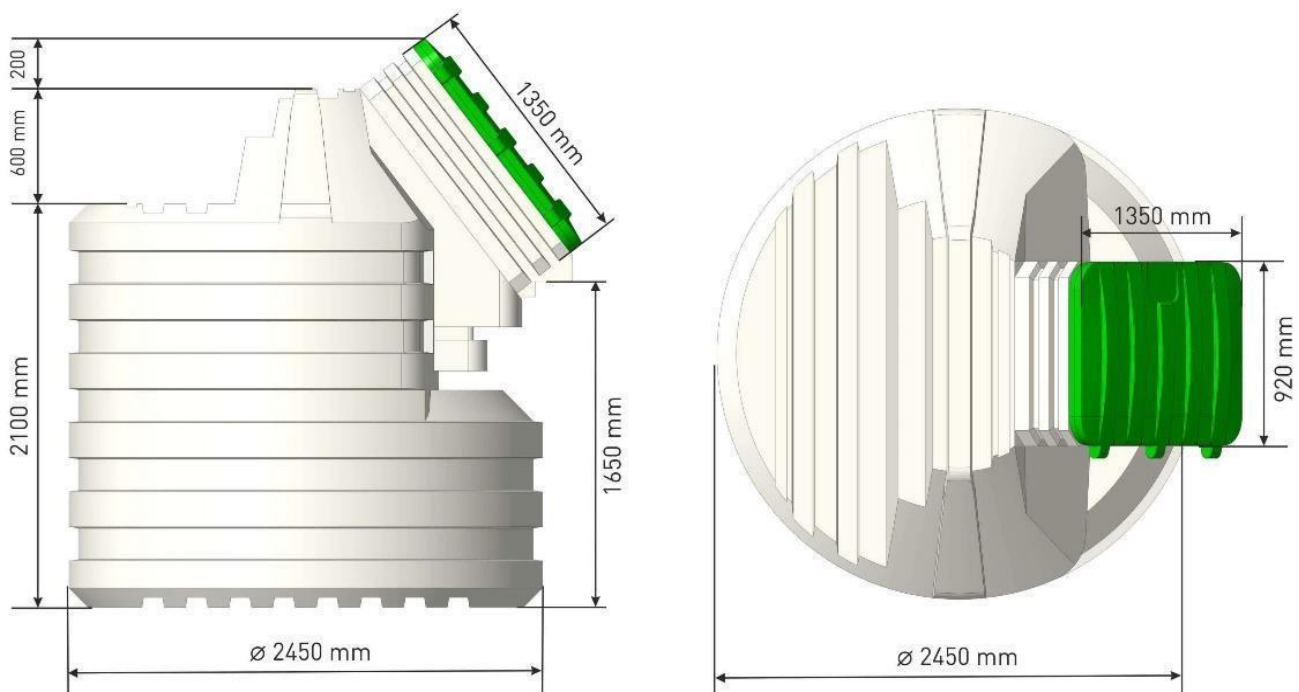
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This technical data sheet describes the basic technical characteristics of the Natural Fridge 250 Cellar, constructed from plastic with a side entrance, as well as its installation and usage procedures.

Plastic cellars are designed for storing packaged vegetables, fruits, liquids, beverages, and various food types. The Cellar is delivered ready for ground installation. The Cellar is manufactured from food-grade polyethylene as a monolithic structure using rotomolding technology. Does not require additional sealing.



Diameter 245 cm

Height 270 cm

Volume 9 m³

Weight 900 kg

Entrance dimensions 90 x 130 cm

Shelf width 27-32 cm

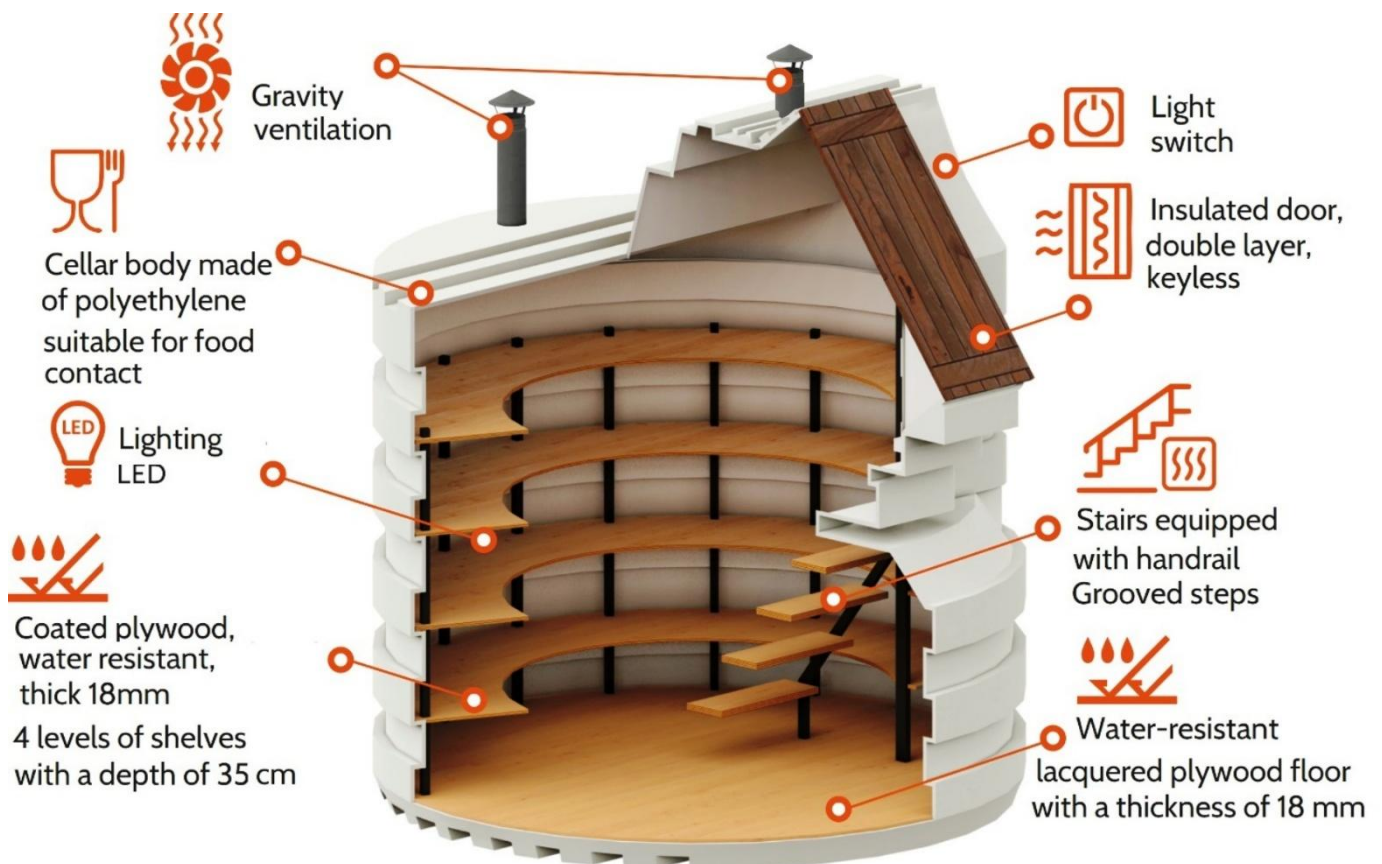
Shelf area 5.1 m²

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

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 (hatch) - 1 pc
7. LED lighting - 1 pc
8. Weather station - 1 pc





Assembly and Operating Instructions

The cellar body is constructed from food-grade polyethylene reinforced with ribbing. A robust steel frame, which also functions as reinforcing ribbing for the body, is installed within the cellar. The unit does not require additional sealing or corrosion protection.

The lower part of the cellar should be buried to a depth of approximately 165 cm below ground level. At this depth, significant ground pressure forces are exerted on the cellar structure. These forces can be even greater with high groundwater levels or in the case of clay soils, which may shift during freezing. Therefore, the installation of the cellar must be performed in strict adherence to these instructions. This will ensure that the aesthetic and practical cellar provides service for many years.

Before commencing cellar installation, the groundwater level and soil type at the site must be determined.

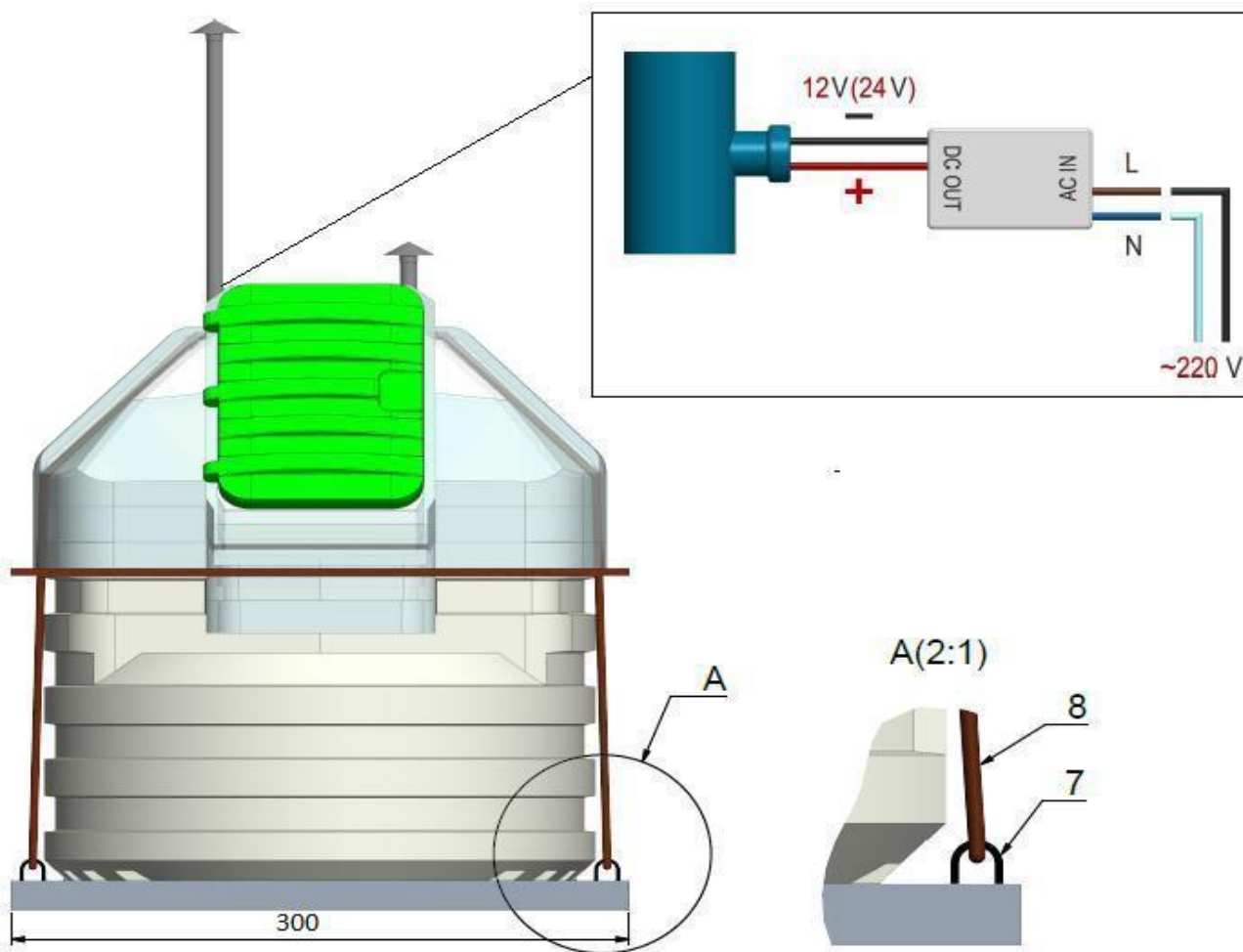
Required Materials

Materials required for the installation of the 250 Cellar:

- Semi-dry (dry) ready-mix concrete B15-B25, 4-5 m³.
- Reinforcing bars 10-12 mm, 30 linear meters (m.l.).
- Expanded polystyrene (Styrodur) insulation boards, 5 cm thick – 20–24 pieces.
- Underground cable 2x2.5mm² or 2x4mm² - from the cellar to the connection point of the 220V power supply unit to the mains.
- Synthetic straps with a permissible load of 4 t and a length of 7 m - 2 units, or steel cables with polymer coating, minimum diameter 12 mm and minimum length 7 m - 2 units.

Excavation Dimensions

The excavation dimensions for the cellar installation must be 20 cm larger than the cellar's width and length around its entire perimeter, measuring at least 270 x 270 cm in the lower section. The excavation depth should be 175-180 cm. This ensures that after the cellar is placed on a concrete slab or dry concrete base, the lower edge of the manhole cover will be positioned 5-10 cm above ground level. This measure is intended to prevent rainwater or meltwater ingress into the cellar. The excavation walls must be vertical and maintain precise dimensions throughout their



The cellar is to be placed on a pre-poured concrete slab at the bottom of the excavation and secured using straps (not included). The cellar must be centered on the concrete slab. Then, secure it to the slab with straps or rope and backfill each side with dry concrete. Each layer, 30-40 cm in height, should be moistened with water to accelerate the hardening of the dry concrete. The cellar body should be surrounded by dry concrete to a height of 0.6-1 m from the bottom. Then, the cellar is backfilled with sand.

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

Installation of the Upper Section

To reduce temperature fluctuations inside the cellar and distribute the ground load on the cellar body, it is necessary to use insulating Styrofoam (extruded polystyrene foam board), 5–10 cm thick, with a thickness of 5-10 cm (Styrodur or similar). This material should be applied to the upper part of the cellar (the side surfaces of the entrance and the upper surface of the cellar body), as well as around the chimney and the side surfaces of the cellar body to a depth of 60 cm from the upper plane of the cellar body. Thermal insulation should be covered with geotextile



or thick film.

After insulation, it is necessary to backfill the exterior of the cellar body with sand or light soil. Do not use stones or clay for backfilling the cellar.

The ground level above the cellar must not exceed 50 cm above the thermal insulation at any point over the cellar body. Additionally, large stones must not be placed over the cellar body. When installing paving stones above the cellar, a vibratory compactor for dry concrete must not be used.

Ventilation pipes must be extended 50 cm above ground level for the supply pipe (which delivers air to the lower part of the cellar) and 100-150 cm for the exhaust pipe (which removes air from the upper part of the cellar), and equipped with ventilation caps (these are included in the cellar kit).

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

Caution

When backfilling the cellar body with soil, construction machinery must not be used within 1 m of the body. Vehicle movement within 1 m of 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 cellar's frame and shelves by ground pressure, and over larger distances between frame elements, the walls may slightly bow inward. In the event of significant temperature differences, some condensation may appear on the entrance door or walls. Condensation evaporates on its own after some time and does not require specific removal. At very low temperatures, frost may appear on the inner side of the entrance hatch. If this phenomenon occurs frequently, it is recommended to insulate the door from the inside with insulation foam.

It is recommended to take photographs during the installation process and retain them for the duration of the warranty period.



Warranty Conditions

During the warranty period, the buyer is entitled to free repair of product defects resulting from manufacturing errors. The warranty covers fittings, food-grade material quality, flooring and shelving, and mechanical and welded connections.

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

- Normal wear and tear of all parts and components, natural aging, and damage to paint and surfaces caused by normal use.
- Environmental influences, including corrosive substances, atmospheric conditions, industrial pollution, chemicals, plant saps, 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, caused by the characteristics of rotationally molded products);
- Damage caused by natural disasters, fires, domestic influences, and other force majeure;
- Damage caused by the actions of third parties, including during product delivery or assembly, that violate the plastic cellar assembly instructions;
- Damage and deformations of products caused by changes in geometric dimensions that occurred after the completion of installation works, as well as due to the product's construction;
- In the event of corrosion caused by scratches and paint chips on the frame and various parts and connections.

The warranty expires if the product is repaired or serviced by individuals or companies without prior consultation with the manufacturer.

Warranty period: 24 months.

The warranty for certain components (weather station, LED lighting) is 1 year.

Expected lifespan: at least 50 years.