

Innovative applications of plastics

AMARGO ®

Structural Coffers PP

Wall elements



Pogodna 10 Piotrkówek Mały
Ożarów Mazowiecki 05-850
NIP: 723-152-09-67

email: biuro@amargo.pl tel: +48 22 758 88 27 29 38 22 244 22 201 24 03 Fax: +48 22 722 34 48

www.amargo.pl

General comments

The elements are made by:

- Polypropylene injection molding technology integrated structurally lightened by injectors,
- Polypropylene and polypropylene recycled integral by injection molding technology, which are structurally lightened by injectors.

The components are manufactured in the following versions:

- Clear NATUR
- stained white and black (other colors after consultation with the client)
- stabilized or non-stabilized to UV radiation

O The modules of polypropylene are used as structural components for the manufacture of various types of applications (process tanks, storage, internal, external tanks, galvanizing baths, swimming pools, wells, septic tanks, etc.) who are subjected to loads and corrosive chemical. The condition of application for these purposes is to perform statistical calculations. The scope of components is due

to physical and mechanical properties listed in Annex 1 (does not apply to items made of a recycling material).

O modules of a recycling material due to the nature of input material are not suitable for use in complex structures. They are recommended for the construction of small capacity tanks that are less prone to mechanical stress.

O The elements can be combined by welding, welding with or without the use of additional material (welding wire). In the case of welding components used in the manufacture of articles intended to come into contact with drinking water the impermeability must be ensured in areas of welds and weld should be smooth. For elements of recycling material the manufacturer does not guarantee the ability of welding. Additionally, you can use a mechanical connection - through twisting metal screws.

O for food purposes and for contact with potable water are used items, which have been proven not harmful to health when in contact with foodstuffs and drinking water and refers to the card for them on their harmless nature for health.

Technical requirements

The elements should meet the technical requirements, which are listed in the data material as the element of this technical standard.

The physical and mechanical properties are given in Annex 1 (does not apply to products from recycling materials).

The inlet of all devices is aligned in the plane.

O In the same products as a defect is not considered:

- the characteristic appearance of the surface of material structurally lightened,
- uneven shades of color (stream lines, inconsistent staining),
- light corrugation of surface typical for structural foam,
- minor damage to the edges with a maximum length of 1 cm
- hollow inside of the device, which do not manifest themselves as an infringement of skin,
- Different shades of the same basic color.

The goods must be arranged for the inconsistent group (or any other custom color) or waste as waste because of the following disadvantages:

- irregularity of the product (lack of injection)
- size or weight does not meet allowable tolerances specified in the standard (possibly product is not compatible with the reference model)

- mechanical damage to the surface (cracks, corrugation extending deep into the material by more than 1 mm)
- uneven surface (bulging or concave area more than 1 cm²),
- penetration of different colors.

O incompatible products (sold in a different color, or custom) shall be provided by agreement between the manufacturer and customer.

Tests

The term of dimensions, flatness and evenness of edges of wall elements

Dimensions, flatness and evenness of edges of wall elements is determined by the data of measuring instruments. The measured values given in [mm] should be in accordance with standard drawings and technical documentation.

Instruments:

Retractable Metre

Ruler

Depth Metre

Method of work:

- Dimensions of longwall element are measured using the rolled meter. All sides should be measured and determined values given in [mm].
- Flatness of longwall element is measured using a ruler and gauge between points A - C on the inlet side.

Deviation from flatness is the difference between the ruler and measure the surface element and is given in [mm].

Delivery, packaging, labeling, transport and storage

O When ordering parts client should indicate the number of this technical standard, basic dimensions, color, quantity, or further details (UV stabilization, harmless to health, etc.).

O The packaging unit is the pallet.

O The elements are stacked on pallets and are protected against the moving tape stretched in both directions. The edges of the tape are adequately protected against damage.

O The packaging unit contains the card which states:

- indication of the manufacturer

- designation of the product
- Basic dimensions
- Color
- the number of units of the product on a pallet
- date of manufacture
- name of employee responsible for packaging
- declare that the product is compatible with existing standard
- if the device is harmless to health - an appropriate designation.

O The goods are transported by the usual means of transport. The load should be clean and the products arranged so as to avoid any damage to them.

O The pallets of products for storage should be placed on an equal backing it is prohibited to lay too many of them.

O HARMLESS TO HEALTH

O The elements are made according to the formula approved by the National Institutes of Health (National Reference Centre for Materials and (National Reference Centre for Drinking Water) and pursuant to the provisions of the Chief Sanitary Inspector (HEM-3214-7.10.96/25609 - contact with foodstuffs and HEM-3214-14.11.00/46093) may be used in contact with foodstuffs and drinking water and meet the requirements of Regulation No. 73/1990 MZ, under which amends and supplements the Directive No. 49/1978 on hygienic requirements for plastic and plastic objects in contact with food.

O For the described plates the health safety card No. 1 B applies, which is part of this technical standard.

O The product has a Certificate of National Institute of Hygiene No HK/B/0522/01/2007.

Characteristics of fire protection

O The fire protection characteristics are given in the safety data sheet "polypropylene extruded and injected products, plates stained and not stained, possibly in terms of UV stabilized, the elements of longwall, grates, round rings and other articles made of polypropylene."

Eliminating waste and packaging

O The waste from products are recyclable.

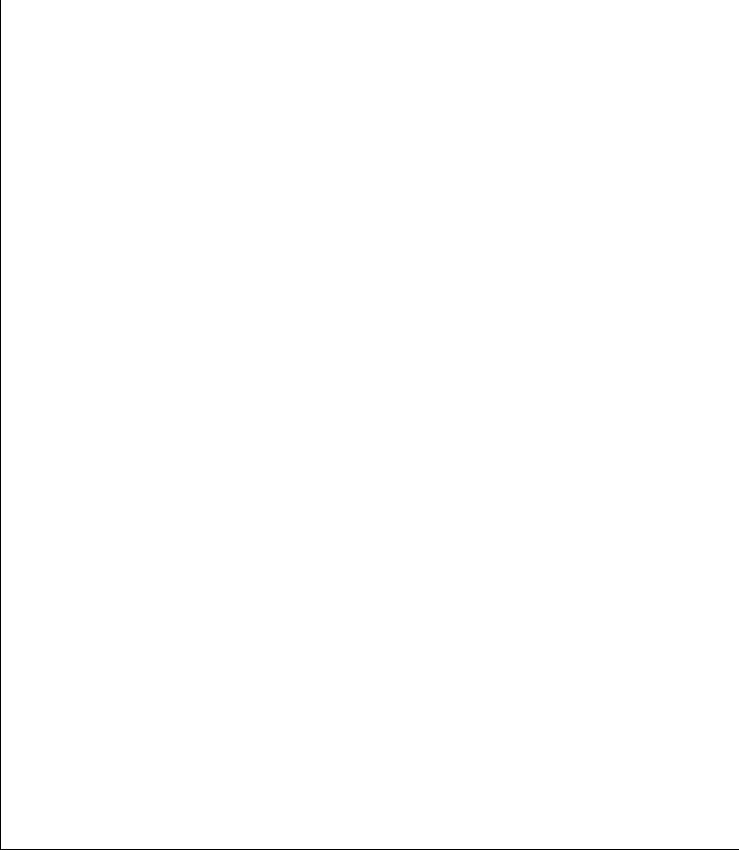
O The pallets are returnable, the other packing materials are recyclable.

List of papers wall materials for the components

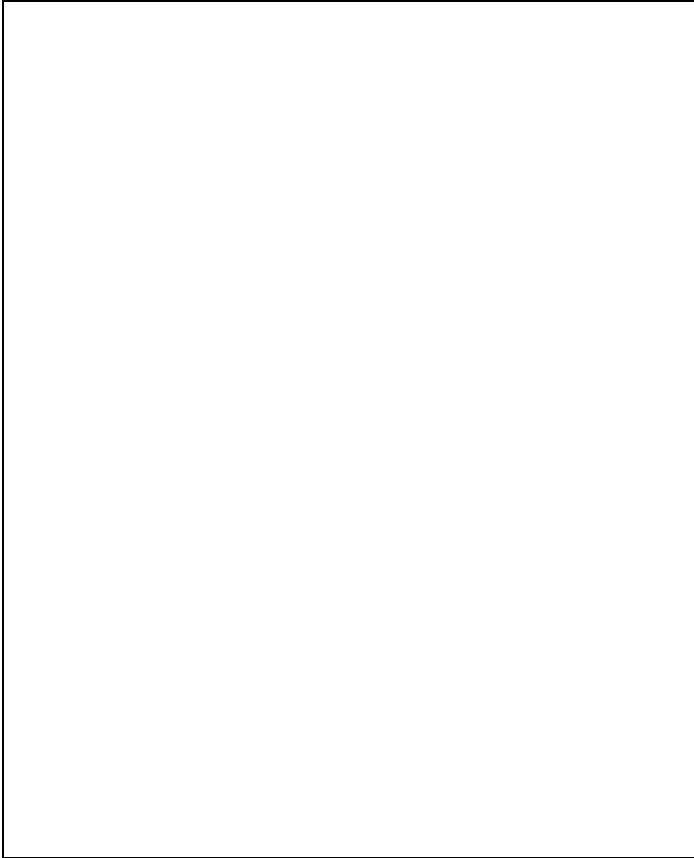
Card No. 1 – Wall Element from polypropylene MODULE 20



Card No. 2 - Wall Element from polypropylene MODULE 25



Card No. 3 - Wall Element from polypropylene MODULE 25 VARIO



This material card is valid for the elements of the wall made by integral injection molding technology (the only element)

Basic dimensions	80 x 1000 x 1000 mm
Tolerances on dimensions	1000 mm \pm 4 mm
	1000 mm \pm 4 mm
Weight (MOD 20)	21,5 kg \pm 0,6 kg
Flatness	\pm 8 mm
Deviation from a straight edge	5 mm

Technical Data

- O The density (according to PIB) 826 kg/m³.
- O Modulus of elasticity (according to EN ISO 527) 1347/1493 (bending / tension) MPa.
- O The stress at yield (according to EN ISO 527) 24.6 MPa.
- O The elongation at yield (according to EN ISO 527) 7.5%.
- O The average coefficient of thermal elongation (64 0528) $122 \cdot 10^{-6} / K$.
- O Shore's hardness (according to EN ISO 868) 65.
- O Impact-strength of Charpy (according to EN ISO 179) + 23 ° C - 18.1 - 20 ° C - 9.2 kJ/m².
- O Flammability class - a product of normal inflammation.
- O The MOD 1920 TUV Certificate No. 150/04/07/02/0.
- O The MOD 1925 TUV Certificate No. 151/04/07/02/0.
- O ITC Certificate No 472,100,674th
- O The National Institute of Hygiene Certificate No HK/B/0522/01/2007.
- O The product is made in accordance with PN 35-195-04.