

MODULSOLUTION

# VENTURO





## About the project

# About VENTURO

The Venturo project is inspired by the work of Finnish architect Matti Suuronen.

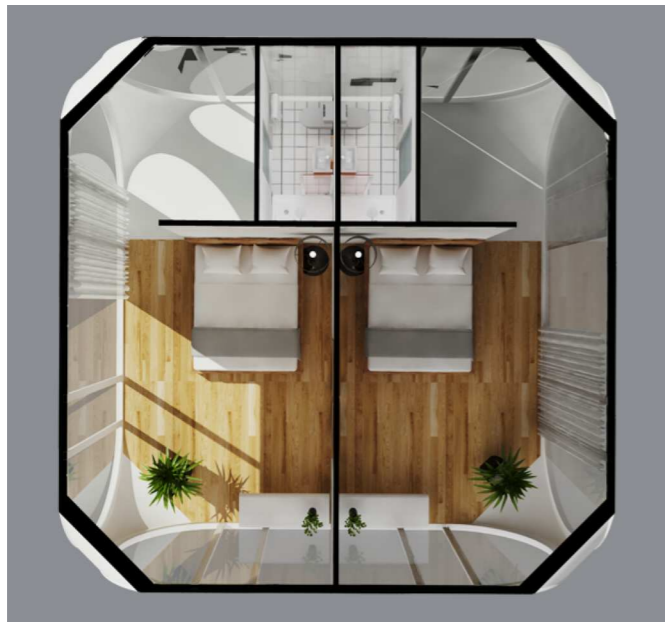
Its wavy smooth elegant forms are made in the style of the 60s. The house looks modern, light and it suits perfectly for outdoor recreation. Thanks to panoramic windows a large amount of sunlight enters inside the house and creates a feeling of freshness.





# VENTURO home, size 7\*7

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The layout is designed for one or two bedrooms, a living room with a kitchen and a bathroom.

It is possible to divide the house into two independent apartments. It allows to accommodate two families, or to use the house for glamping.



## VENTURO home, size 7\*7

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The dimensions of VENTURO 7\*7  
are 700x700x320 cm.

The weight of the finished house  
is up to 3.5 tons.

The house does not require a concrete base.

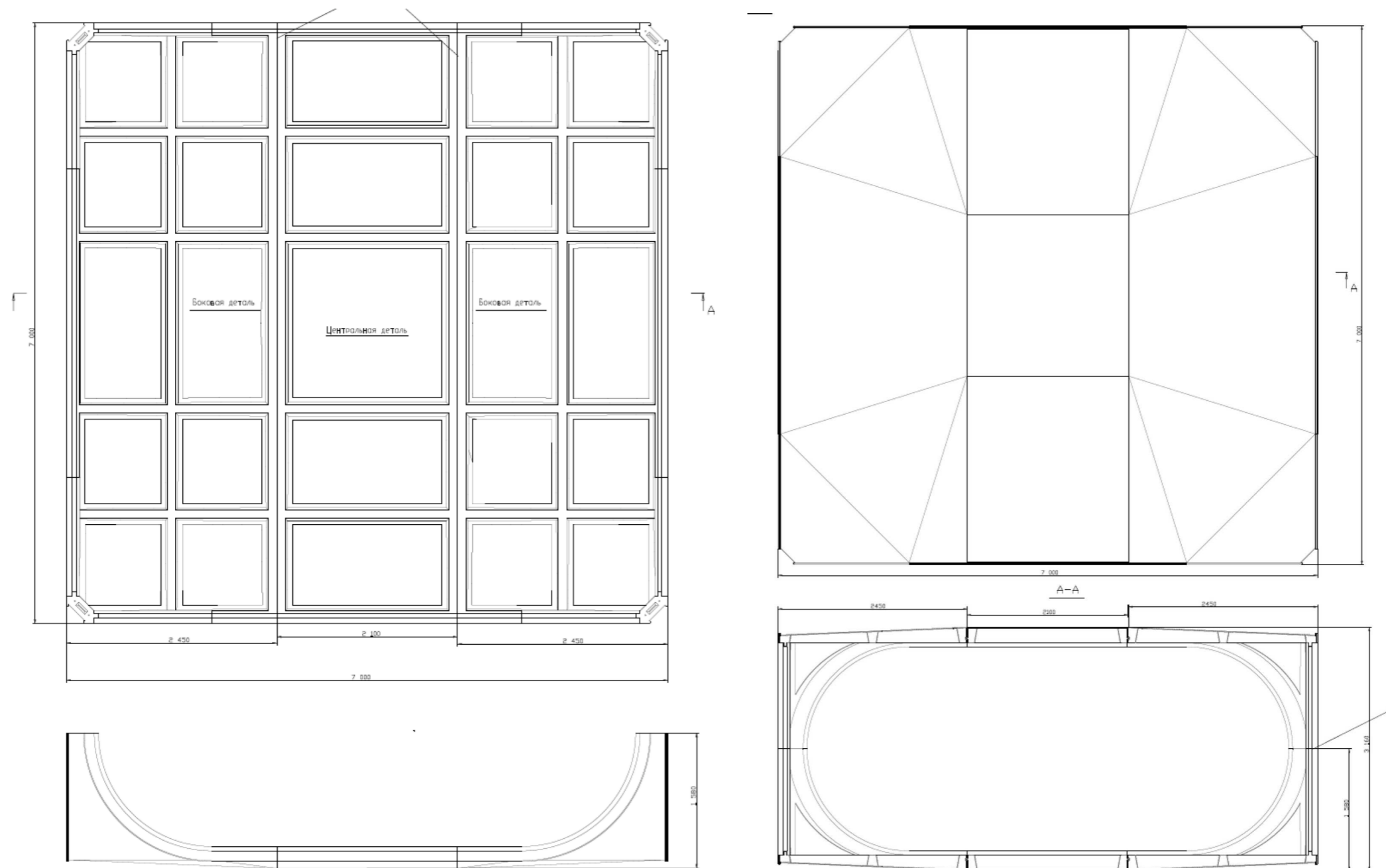
The design of the house allows  
quick installation within two working  
days without  
highly qualified staff.

The set includes a square metal  
frame, a base for fixing the house in 4  
points to any basement.



VENTURO 7\*7

# VENTURO home, size 7\*7



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The dimensions of VENTURO home 7\*7 are 700x700x320 cm.



VENTURO 7\*9

## VENTURO home 7\*9

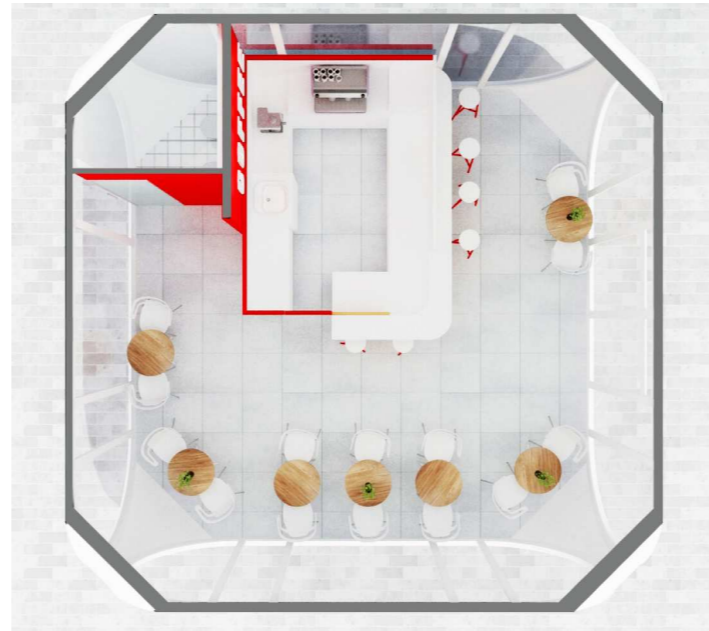
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The design solution of the Venturo house with a larger area allows to create different interior plans for any needs.



# VENTURO for commercial uses



We have developed various solutions for the commercial use of VENTURO homes.

- glamping houses
- children camping
- cafès and bars
- newspaper stalls
- ticket offices
- petrol stations
- service buildings

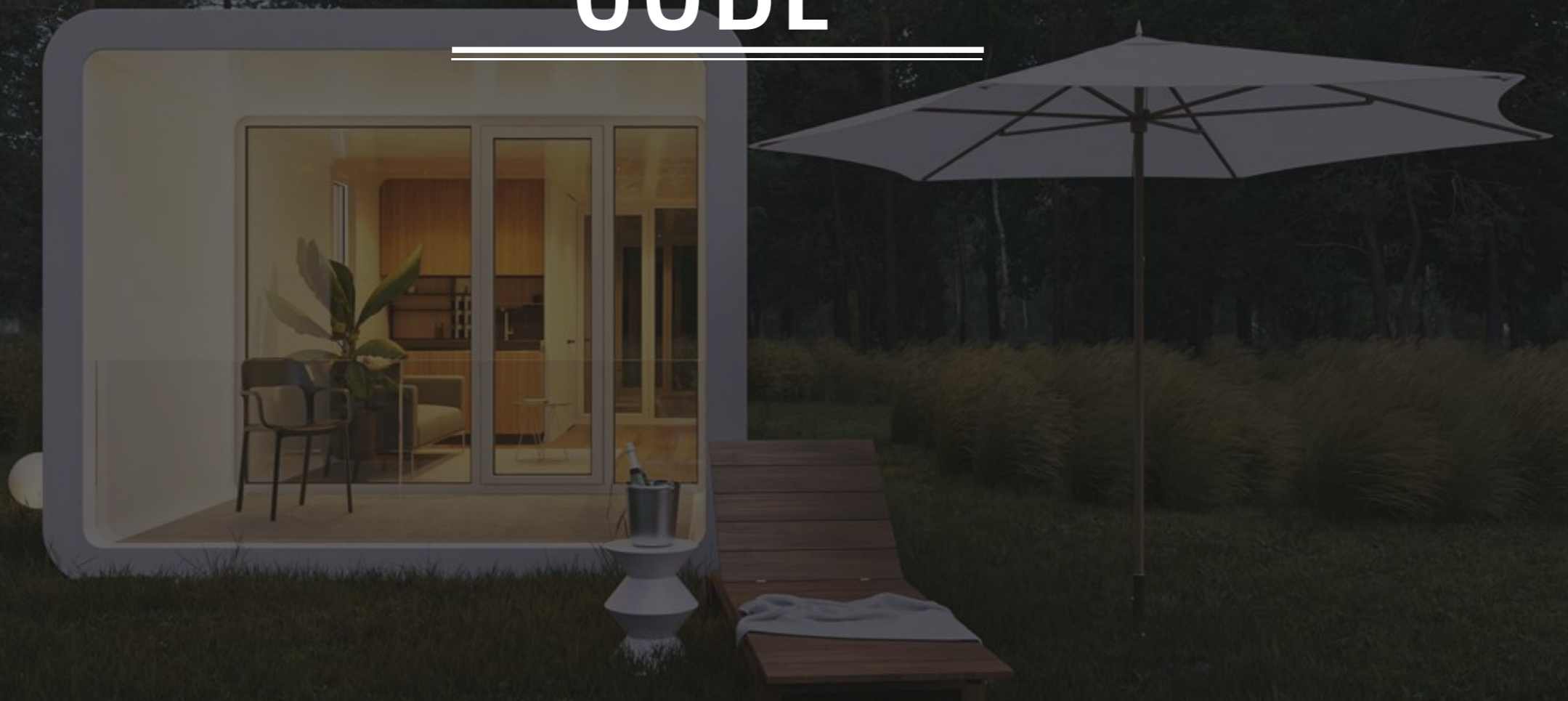
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# CUBE





## About CUBE

Modern architectural forms of the CUBE house are made of high-quality fiberglass.

The CUBE project is a set of several ready-to-assemble modules with a size of 3,40/2,45/2,90 metres.

Each module is a ready solution for creating your home, such as: an entrance group with a bathroom and air conditioning, a living room, a bedroom and a terrace.





# CUBE

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An open plan of the house allows to choose individual planning options and finishing materials.

Modules are assembled directly at the factory.

The assembled modules are transported by standard road transport to the customer's territory. CUBE houses are not a capital structure and don't require a construction permit. The houses can be installed on land as well as on a floating pontoon on water.





# CUBE for commercial uses

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The company has developed various commercial solutions of CUBE project for your business:

coffee kiosks

customer service centers

glamping houses

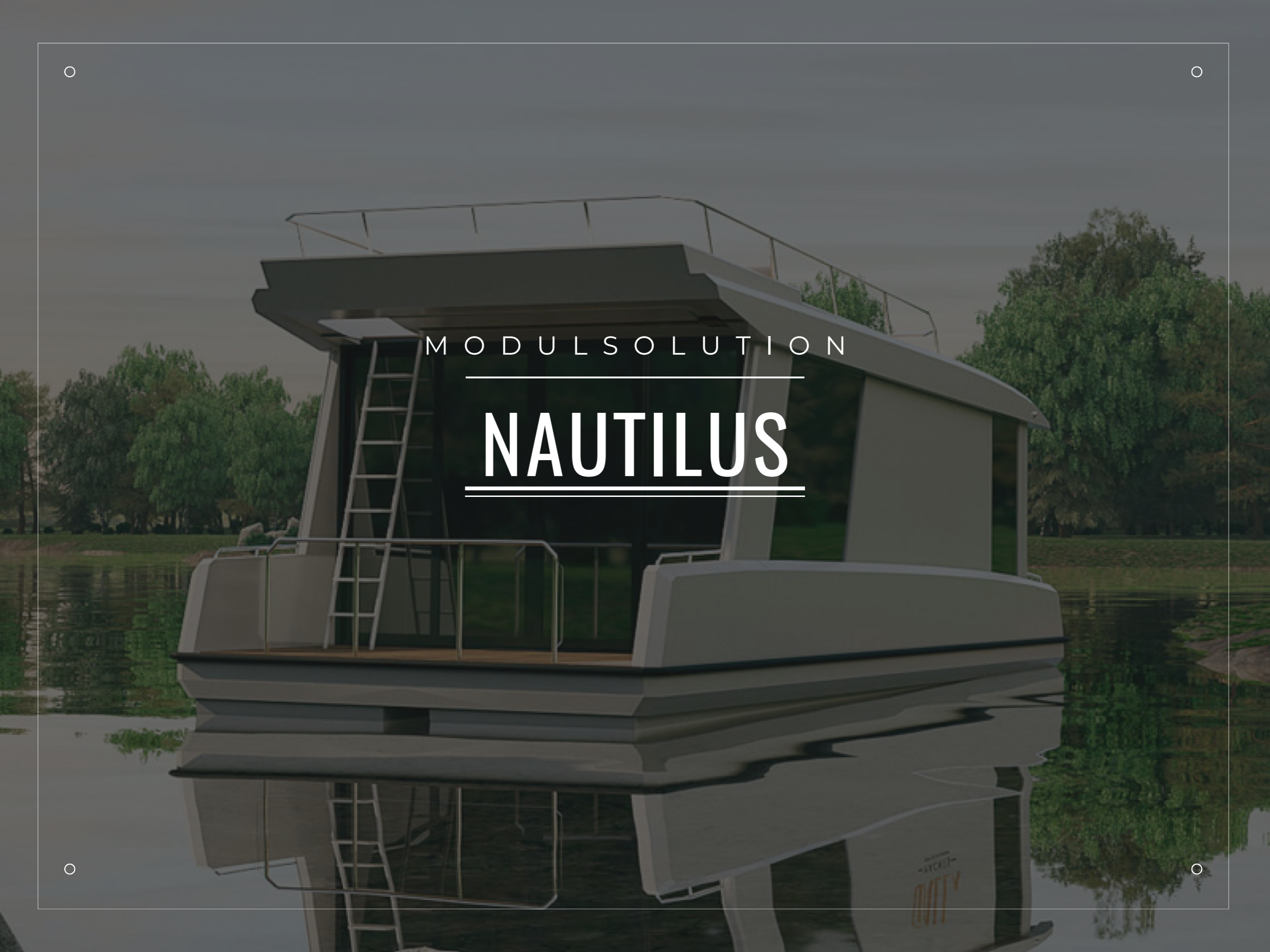
childrend camping

etc



MODULSOLUTION

# NAUTILUS





About the project

# About NAUTILUS

We have developed a concept of yacht houses for relaxing and travelling on water.

We have created high quality and reliable yacht houses using our unique technology.

There are two possible models.





# NAUTILUS 10

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Nautilus 10 is a house on the water, an innovative river yacht that is ideal for travelling, relaxing or working. This premium houseboat is a great place for short trips as well as long stays.



At the top there is a large terrace (20 sq. m), and downstairs there is a front and a rear deck.

# NAUTILUS 12

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Nautilus 12 is a D-class river yacht designed for travelling on rivers and lakes. The design of Nautilus 12 combines elegance and stability and reveals the owner's personality.

The houseboat meets the latest technological standards. Only natural and high-quality materials are used in its construction. This houseboat makes it easy to travel and live there all year round.





## What is it made of ?

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The design of the house consists of two fiberglass panels - external and internal, and insulation.

The thickness of the insulation varies from 100 mm till 200 mm.

The standard house can be used even in winter.

# What is fiberglass?

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This material is stable and does not have a thermal expansion coefficient. It is resistant to all corrosion, acids, etc. It is resistant to UV radiation as well.

Its strength characteristics are equal to steel A3 (constructional steel), but our product is 7 times lighter.





# PRODUCTION

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We produce fiberglass using spraying technology, which is also applied in the production of boats and yachts. Our company uses Graco equipment for fiberglass application.

This technology has a number of advantages:

- It saves time, factory space and employee working hours.
- It increases the speed of production
- Graco allows us to create a high-quality product.



## Are materials safe?

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**For thermal insulation of our houses we use ROCKWOOL materials.** ROCKWOOL received the environmental safety mark EcoMaterial Green. It confirms the safety of using the material in all types of buildings and for interior decoration, including bedrooms and children's rooms.

ROCKWOOL stone wool does not contain substances from the Candidate List of Substances of Very High Concern.

In 2016, all four plants in Russia received one of the highest environmental safety marks EcoMaterial Absolute.

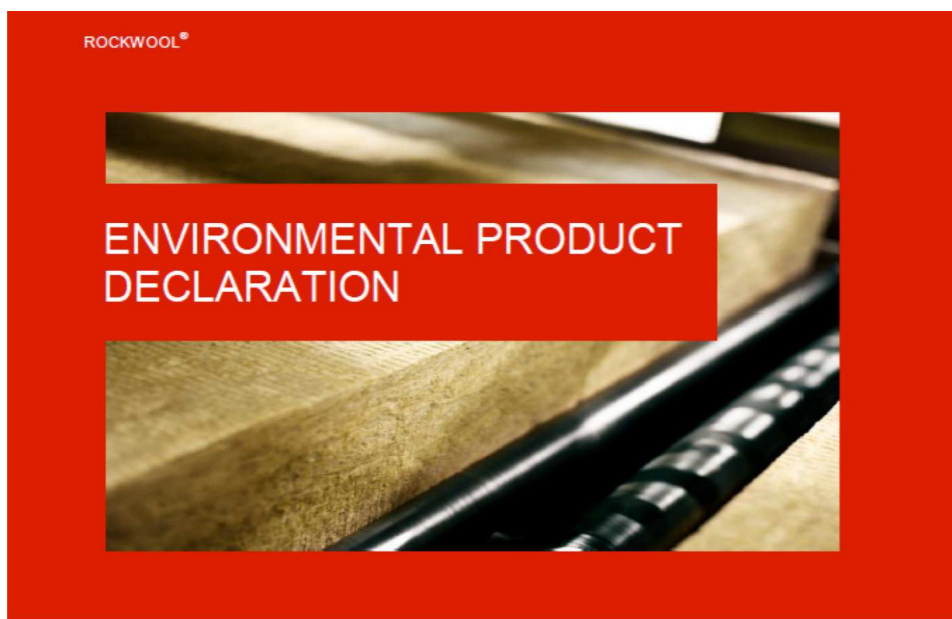
In 2017, the Russian branch of the ROCKWOOL Group received an Environmental product Declaration (EPD).

It means that the use of such products in construction may increase the environment-friendly rating of buildings according to the international rating systems LEED and BREEAM. This Declaration is required if the materials are used in the constructions that are built according to "green" standards.

Mineral wool fibres produced by ROCKWOOL are classified as non-hazardous under REACH (Regulation (EC) No 1272/2008 of the European parliament and of the council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.



# ROCKWOOL CERTIFICATES



**ROCKWOOL®**  
**Stone Wool Thermal Insulation for buildings**  
 EPD according to EN 15804 and ISO 14025 and 3<sup>rd</sup> party verified  
 ROCKWOOL Group EPD rules and LCA model

**Manufacturer:** ROCKWOOL LLC Russia

**Owner of the declaration:**  
 ROCKWOOL LLC  
 9 Zemlyanoy Val str.  
 BC Citidel  
 Moscow 105064, Russia

**Contact person:** Alexey Voronin  
 (alexey.voronin@rockwool.ru)

**Date of issue:** April 2017  
**Valid until:** April 2022

**Life Cycle Assessment study**  
 This environmental product declaration is based on a Life Cycle Assessment (LCA) background study according to EN15804:2012 carried out by: ROCKWOOL® International A/S  
 Hovedgaden 584  
 2840 Hedehusene  
 Denmark

**Verification:**

|   |   |
|---|---|
| CEN standard EN 15804 serves as the core PCR  |   |
| Independent verification of the "Rules for LCAs / EPDs for ROCKWOOL products" and the underlying LCA model described in the rules, according to ISO 14025:2010, and EN 15804:2012+A1:2013, and in addition prEN 16783 serves as the PCR | Independent verification of the calculation for this declaration and the declaration, according to EN ISO 14025:2010                                      |
| <input checked="" type="checkbox"/> external  | <input checked="" type="checkbox"/> internal  |
| Third-party verifier:<br>Jane Anderson (Principal Consultant at thinkstep Ltd)<br><i>Jane Anderson</i><br>28 July 2015  | Remark: this EPD is issued by ROCKWOOL International and internally reviewed by senior experts. The externally reviewed rules and model have been applied |

Environmental Product Declarations (EPDs) from different suppliers may not be comparable if they do not comply with the EN15804:2012 Clause 5.3



## Product

**Declared unit**

1 m<sup>2</sup> ROCKWOOL stone wool thermal insulation product with a thermal resistance of R<sub>0</sub>=1 m<sup>2</sup> K/W.

**Intended application of the Environmental Product Declaration**

This EPD is intended to be available to ROCKWOOL customers throughout Russia. This EPD can also be used in other markets that receive products from the factories in Elabuga, Troitsk, Vyborg, and Zheleznodorozhny. Such markets include but are not limited to: Finland, Latvia, Lithuania, Estonia, Ukraine, Poland, Kazakhstan, Belorussia, Armenia and Kyrgyzstan.

**Product description**

Stone wool is a widely used material commonly used to thermally insulate buildings. ROCKWOOL® insulation products contribute to the creation of energy-efficient and fire-safe buildings with good acoustics and a comfortable indoor climate.

Stone wool is available in various forms with different characteristics and properties to suit a wide range of applications, ranging from the insulation of roofs, lofts, walls, floors and HVAC systems in buildings to, fire-protection and noise reducing solutions and use in process industry. The ROCKWOOL® products considered in this EPD are boards or rolls used to provide thermal insulation in general building applications. The specific product referred to in the declared unit is 36 mm thick and has a density of 31 kg/m<sup>3</sup>. The thermal conductivity for this product has been measured at 10°C as per GOCT 31925-2011 (EN 12667:2001) to correspond with the declared unit with an R<sub>0</sub>=1 m<sup>2</sup> K/W.

The packaging, such as PE film for packaging and palletizing, the pallet out of wood and the labels, are included in the assessment. Any facings, such as glass fleece, aluminium foil or other laminations, are excluded in this EPD. If relevant for a product, their environmental parameter values should be added.

**Product specification**

ROCKWOOL® stone wool insulation is a firesafe<sup>1</sup> material for insulation against heat, cold, fire, vibrations and noise. It is traditionally made from volcanic rock (typically basalt or dolomite), an increasing proportion of recycled material, and a few percent resin binder (typically 2–3% w/w for external wall and pitched roof products and slightly more for flat roof products). The product is wrapped with PE-film and placed on wooden - or stone wool pallets for further distribution.

The binder is a water-based phenol-formaldehyde resin which is polymerized into solid resin during production of the final stone wool product.

<sup>1</sup> Non-combustible according GOST 30244-94

**Reference service life**

The reference service life of the insulation products in the building is not relevant in this EPD since the use stage of the building is not considered. ROCKWOOL® products are durable and usually fulfil their function as thermal insulation as long as the building or construction lasts.

For calculation purposes a reference service life of 50 years has been agreed to as a basis for the GOST 32314 (EN 13162) and GOST R 57418-2017, but could be adapted if a longer service life is assumed for the building's wall and roof in which ROCKWOOL® insulation products are applied. In some calculations, a service life equivalent to the building part life or building lifetime can be applied.

**Technical information**

The product standard that applies is GOST 32314-2012 (EN13162:2008 Thermal insulation products for buildings – Factory made mineral wool (MW) products – Specification).

Specific characteristics and additional functionalities shall be taken into account when applying the EPDs in the building context:

- Most ROCKWOOL® stone wool material is classified as non-combustible, the best reaction to fire according to GOST 30244-94.
- ROCKWOOL® stone wool products are often applied because of their acoustic properties. For example, a well-constructed wall using mineral wool insulation can reduce noise transmission by around 50dB [according to the local building norms]. Specific acoustic properties can be retrieved through the technical consultancy support.
- ROCKWOOL® stone wool products are durable without any ageing of the thermal performance. They are dimensional stable and both water repellent and moisture resistant. Moisture and nutrient are necessary conditions for mould growth. Since more than 95% of the mass of mineral wool products is inorganic, there is little nutrient source to allow fungi/mould growth [ref. Eurima-health-safety].

More specific product information can be found on [www.rockwool.ru](http://www.rockwool.ru) or through the local ROCKWOOL® sales organizations.

Guidance on safe and effective installation is also provided through the [local organization](#) and at the end of this EPD.

ROCKWOOL® stone wool is 97% recyclable. For information on how waste ROCKWOOL material that may be generated during installation or at end of life can be recycled through the ROCKWOOL RockCycle process and converted into raw materials for use in the ROCKWOOL production process, please contact ROCKWOOL at [www.rockwool.ru](http://www.rockwool.ru).

ROCKWOOL® stone wool waste is classified as nonhazardous. ROCKWOOL® insulation waste is covered by the non-hazardous entry (17 06 04) in the List of Wastes of the European Waste Catalogue. Leaching tests of mineral wool waste by Eurima demonstrate that they comply with the criteria for acceptance of waste at a landfill for non-hazardous waste and with the criteria for acceptance of waste at



## Are materials safe?

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**For an in-mold coating we use a GELCOAT**

**MAXGUARD TM from Finish manufacturer Ashland.**

MaxguardTM gelcoats meet the toughest requirements set by classification societies such as Lloyd's Register of Shipping, Det Norske Veritas and Germanischer Lloyd's for small crafts. The manufacturing, quality control and distribution of products, by Ashland Performance Materials, are complying with one or more of the following programs or standards: Responsible Care, ISO 9001, ISO 14001 and OHSAS 18001.

Maxguard GN gelcoat surfaces complies with the American Thermal Shock test ANSI Z124.3-86 for sanitary applications.

**To create a decorative and protective layer on the surface of a fiberglass product, we use MAXGUARD**


**TOPCOATS** from the Finnish manufacturer Ashland.

Maxguard TN HA meets the requirements of classification associations such as Det Norske Veritas, Lloyd's Register of Shipping and Germanischer Lloyd for the construction of small vessels. It is based on IZO/NPG resin.

**We use APOROL RESINS of Ashland.** APOROL is a thixotropic, pre-accelerated, low styrene emission general purpose polyester resin. The manufacturing, quality control, by Ashland Performance Materials, are complying with : Responsible Care, ISO 9001, ISO 14001 and OHSAS 18001. Meets the requirements of classification associations such as Det Norske Veritas.



# Are materials safe?



**DET NORSKE VERITAS**

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**TYPE APPROVAL CERTIFICATE**

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**CERTIFICATE NO. K-2884**  
This Certificate consists of 2 pages

*This is to certify that the*  
**Gelcoats and Topcoats**

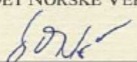
*with type designation(s)*  
**MAXGUARD® GN xxxxxxxx H/S,  
MAXGUARD® GN xxxxxxxx HH and  
MAXGUARD® TN xxxxxxxx H/SZ**

*Manufactured by*  
**Ashland Finland Oy**  
Lahti, Finland


*is found to comply with*  
Det Norske Veritas' Tentative Rules for Certification and Classification of Boats 1997  
Det Norske Veritas' Rules for Classification of High Speed and Light Craft  
Nordic Boat Standard 1990

*Application*  
For use in marine vessels according to stated Rules/Standards. The pigment and filler content for some light colours is in excess of DNV requirements.

*Place and date*  
Høvik, 2006-05-08  
for DET NORSKE VERITAS AS

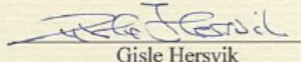


John Olav Nøkleby  
Head of Section



*Local Office*  
DNV Helsinki


*This Certificate is valid until*  
2009-12-31



Gisle Hersvik  
Surveyor

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: K-2884  
File No.: 332.21

**Product description**

MAXGUARD® GN xxxxxxxx H/S, MAXGUARD® GN xxxxxxxx HH and  
MAXGUARD® TN xxxxxxxx H/SZ; Gelcoat and topcoat products based on polyester base resin AROPOL™ S 505.

*Denomination:*  
xxxxx: Colour code  
H: Hand application  
S: Spray application

**Type Approval documentation**

1. Renewal of Type Approval Certificate No. K-2040.
2. Letter from DNV Helsinki of 2006-03-03 and letter (with enclosures) from Ashland of 2006-02-14.

**Tests carried out**

Type Testing carried out according to **Type Approval documentation**.

**Marking of product**

Product shall be marked with *manufacturer's name*; **Ashland Finland Oy, Lahti** and *type designation*.

**Certificate Retention/Renewal Survey**

The scope of the retention/renewal survey is to verify that the conditions stipulated for the type approval is complied with and that no alterations are made to the product design or choice of materials. Survey to be performed after two (2) years (Certificate retention survey) and at renewal after four (4) years (Certificate renewal survey).

The main elements of the survey are:

- Ensure that **Type Approval documentation** is available.
- Review: design, materials, production process, and performance with respect to possible changes, in order to ensure compliance with **Type Approval documentation** and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV Type Approval Certificate.

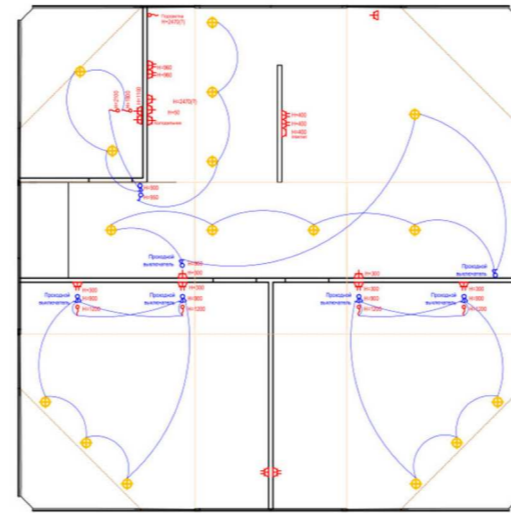
END OF CERTIFICATE



# Engineering solutions



План размещения электрических розеток и электровыводов



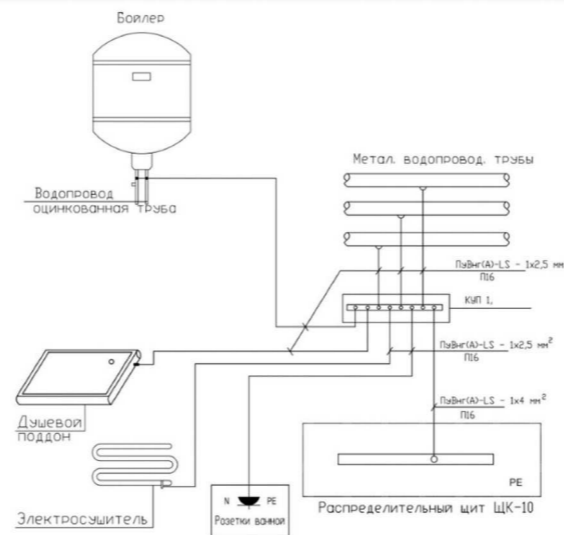
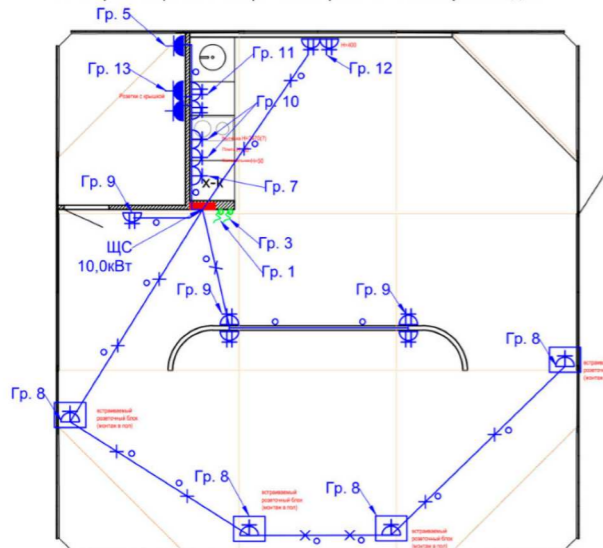
- Интернет розетка
- Выключатель 2-х клавишный
- Выключатель 3-х клавишный
- Выключатель 1-о клавишный
- Вывод для светильника
- Электрические розетки
- Распределительный щит
- Высота установки
- Вывод электрики

The company has prepared engineering communication projects for all the houses: electricity, water supply and security systems.

When you order a house, you can choose the most interesting solution for you, which can be implemented according to the provided schemes.

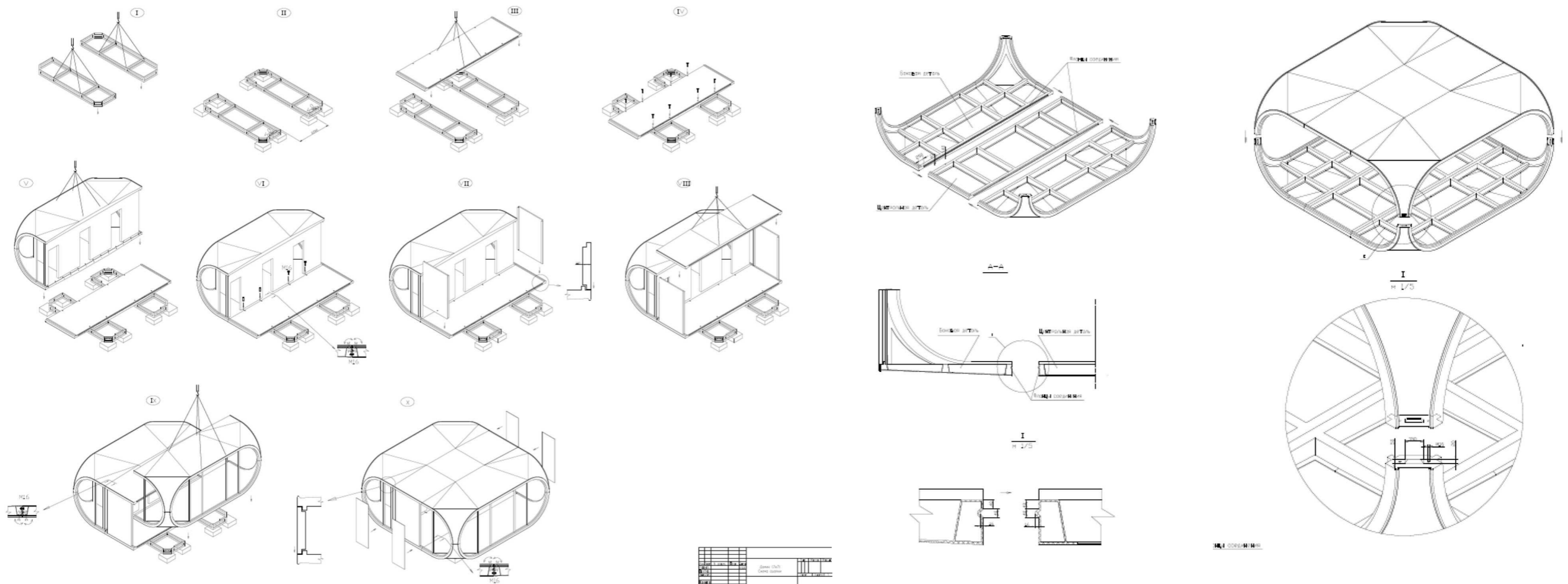
It is possible to implement an individual engineering solution according to the client's needs.

План размещения электрических розеток и электровыводов





# Assembling



The finished modules of VENTURO and CUBE are bolted together.  
We will provide you a detailed instruction for assembling the houses.

# DELIVERY

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The easy-to-maintain modular house is made of fiberglass-reinforced plastic and glass.

The transportation of the finished parts to the customer's territory can be carried out by standard motor transport.

The Venturo house consists of 6 parts that are easy to load onto a truck.

All elements are made as a set of ready-to-assemble parts.



**DURABILITY**

# DURABILITY

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Fiberglass products can endure 50 years.

The maintenance of the house does not require large expenses throughout its lifetime.

# Contacts

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[www.modulsolution.com](http://www.modulsolution.com)