



LLC «SEVSNAB»

www.sevsnab.com.ua

93400 Ukraine,
Luhansk region, Severodonetsk
Str. Novikova, 2
tel. +38 (095) 423-93-92
tel. +38 (096) 502-70-51
E-mail: office@sevsnab.com.ua
sevsnab1@list.ru

COMPANY MANAGEMENT

The new time brings new solutions. Thermal insulation materials market is booming and replace such materials as foam, mineral wool, Penozol, etc., comes a new, more "advanced" technologies that do not require complicated installation, preparatory works, characterized by ease of use and durability.

YOUR ATTENTION WE OFFER HIGH-TECH POLIMERMINERALNUYUNUYU composition "KERAMOIZOL" with unique INSULATING ABILITIES.

The most effective applications:

- The walls of residential and industrial buildings, both on the inside and the outside.
- Roofs of residential and industrial buildings, both on the inside and the outside.
- Metal construction.
- Sheds and garages.
- Crane beams.
- Lower-bridges (lowers the freezing).
- Pipelines thermal heating systems.
- Steam and gas pipelines.
- Air-conditioning systems.
- Tubes with cold water (to prevent condensation).
- Hydrants, water heaters and boilers.
- Heat exchangers.
- Steam boilers.
- Oil pipelines, underground and surface.
- Hot chemical mixing tanks.
- Containers and tanks for water storage, chemicals, etc.



- Cold rooms.
- Covering the inside of the hull, engine compartment, the roof of vehicles.
- Covering the inside of the housing of military and special purpose.
- Refrigerators.
- Car and railroad tank cars for different liquids.
- Engine rooms of ships.
- Decks and interior courts.
- Used as a material intrinsically safe in hazardous

areas (mines, refineries, gas stations, warehouses, fuel, etc.).

Description and properties

KERAMOIZOL is a liquid pasty mass of gray (can be changed), consisting of hollow glass beads, up to 70 microns and a binder (acrylic polymer structured and dispersed polysiloxane).

- The applied coating works by reflecting heat flux. Ceramic spheres are stacked in staggered rows, forming a so-called vacuum layer, which helps heat the material.
- Due to the high degree of filling of the polymer material glass microspheres filled with an inert gas, the coating has low thermal conductivity, the ability to reflect up to 70% of incident light rays and dissipate up to 95% of infrared radiation. These properties contribute to the excellent conservation of heat in the premises, protect against solar radiation, heating the surface areas and roofs.
- **KERAMOIZOL** tested and commercially released in 2006 according to TU U V.2.7-24.6-32396113-001: 2006.
- The competition for energy saving projects in March 2006 KERAMOIZOL awarded a diploma.
- The product is certified.
- The composition of the material is patented - patent Ukraine UA 17435u. Brand "**KERAMOIZOL**" - is registered, a certificate № m2006 00 047 from 03.01.2006, the warranty by the manufacturer - 7 years.



Features & Benefits

- High heat-saving properties.
- No need for construction of additional coverage (sheet metal, plastic, etc.).
- No need for an additional vapor barrier.
- Visibility of damage covered surfaces (gusts of pipelines, tanks, etc.).
- Ease of application (brush, roller, spray gun, spray high-pressure) and, consequently, low cost of the device insulation.
- The possibility of application to the surface of any geometrical shape. The possibility of staining in any color.
- Does not increase the load on the supporting structures.
- Does not change the geometry of space, since the coating thickness is measured in millimeters rather than centimeters, as with standard types of insulation.
- If necessary, repair the damaged surface is easily restored.
- Is not a viable habitat for pests (rodents, insects).
- No interest to the criminal persons as a secondary product.

KERAMOIZOL material is designed to produce coatings on surfaces of any shape and in the most remote places. Can be used to cover walls, ceilings and roofs of buildings, pipelines, boilers, internal walls of vehicles, refrigerators, freezers and other objects.

KERAMOIZOL can be applied to metal, concrete, brick, wood, plastic, rubber, cardboard and other surfaces. The surface to be coated material should be from +5 to +90 °C. The surface to be coated composition must be clean, grease free, free from dirt and rust and primed primers GF-19 GF-21. °C

- **The material is used at temperatures ranging from -50 to +220 °C.**
- **KERAMOIZOL applied to the surface by airless sprayer or brush.**

- The thickness of a coating layer of 0.3 to 0.5 mm, the drying of a coating layer for 24 hours at room temperature at a higher temperature - time is reduced.
- The consumption rate of the material in a single-layer coating - 1 liter per 1 m² at a coating thickness of 1.0 mm.
- Operation for more than 20 years.

Additional material properties:

- **KERAMOIZOL** - an environmentally friendly material that does not include in its composition poisonous or harmful substances, which makes working with him on the premises without additional ventilation.
- **KERAMOIZOL** - fireproof material, which is on fire technical classification p.2 DBN B.1.1-7-2002 belongs to the flammability of B1 (flammable) according to DSTU B B.1.1-2-97, a group of flame propagation RP1 (do not spread flame), according to DSTU B V.2.7-70-98 to the flammability of the group G1 (low flammability), according to DSTU B V.2.7-19-95 to a group of smoke-forming ability of D2 (with moderate smoke-forming ability) according to GOST 12.1.044-89 .
- **KERAMOIZOL** - anti-corrosion material, has a high adhesion, which allows you to isolate the coated surface from the ingress of water and air, thereby eliminating the potential for external corrosion and rust, in contrast to the "wrapping heat insulator," such as polyurethane foam or mineral wool.
- **KERAMOIZOL** - intrinsically safe material and is used to prevent friction sparks in hazardous areas (mines, refineries, gas stations, warehouses, fuel, etc.), the material was tested for intrinsic safety in the friction test center McNeil, protocol number 389-IT on 6/17/2009 Mr.

KERAMOIZOL - liquid insulation, is applied like paint, acts as a thermal protection.

Areas of application are limited only by your KERAMOIZOLA fantasy, but the main directions - two:

1. Housing construction (walls of apartments, floors, roofs, facades, etc.).

KERAMOIZOL material used in building not only as the thermal insulation coating, but also as gidroizolyator. The presence of latex in the material ensures a low vodopoglotitelnuyu ability.

Lightweight and easy to work with **KERAMOIZOL**, the possibility of applying it in the most inaccessible places, high insulating performance, along with waterproofing properties allow the material to occupy practically the leading place among the well-known in the construction of insulating coatings.

In addition, **KERAMOIZOL**, in fact, can be painted in any color and color does not affect the efficiency of coating, which is important for aesthetic facades.

Can be applied over **KERAMOIZOL** any material: brick, stucco, paint (acrylic only), wall tiles, screed, plaster and so on.

The ability to use **KERAMOIZOL** as a defense against condensation on the premises, allows not only to eliminate the freezing of the walls, but also to get rid of fungus and mildew formations. Coverage of **KERAMOIZOL** applied to the walls and roofs of buildings on the outside reduces the penetration of the heat flow into the room to 45%.

Cost Savings:

- Reduced operating costs during the heating season by reducing heat loss through insulation **KERAMOIZOL** structures and interior of buildings.
- Reduced operating costs for air conditioning, indoor air through roof insulation and building walls **KERAMOIZOL**.
- Reduction in direct costs in the construction of buildings and structures due to the possibility of reducing the thickness of the walls, the dimensions of foundations in the application **KERAMOIZOL** as a "heat shield".
- The possibility of replacing cumbersome insulation of facades, walls, buildings and structures **KERAMOIZOL** material.
- Reduced labor costs and construction time by using insulation material **KERAMOIZOL**.
- Reduce the cost of repairing the old isolation due to lack of need for its removal.
- High lifetime warranty **KERAMOIZOL** material.

2. Thermal Engineering and Communication (heating pipes, valves, various containers, etc.).

At the present time, for various insulation of pipelines and storage tanks of various chemicals used materials such as polyurethane foam penostiro, Isover, mineral wool. This method of insulating pipelines is not only pollute the environment, but also dangerous to human health. In addition, the warranty period of such material is not great.

In practice, after 1-2 years under the influence of precipitation and temperature changes, the standard insulating cover completely lose their insulating properties, peel off, showering the ground.

In contrast to the known insulating materials **KERAMOIZOL** has proven himself as a heat shield design with a high temperature (200 °C).

KERAMOIZOL ability to operate at high temperatures, good adhesion, almost any material, making it ideal for use as heat and waterproofing in the heat. In addition, the ability to apply a spray or brush on the surface **KERAMOIZOL** complex configuration allows the use of material in the most remote places.

Cost Savings:

- Reduced labor costs and time with **KERAMOIZOL** by the ease and simplicity of handling.
- Reduce the cost of repairing the pipeline after the warranty period due to the lack of need to remove the old insulation and performance of works on preparation of the old pipeline to isolate.
- Reduce the cost of saving heat in the pipes, boilers, etc. due to the high thermal insulating characteristics **KERAMOIZOL** and full insulation of pipes, boilers, valves, transitions, etc., even in the most remote places.
- The possibility of applying directly to **KERAMOIZOL** hot surface without interrupting the network of the district heating or steam boiler.
- Reduced installation cost by reducing the thermal insulation manufacturing operations related to the insulation of pipelines, etc. when applying **KERAMOIZOL** as insulation.

- Reduce the cost of repairing the pipeline in case of emergency situations by reducing the search time leak, fistula, and no dismantling of the old insulation.
- Reduce the cost of repairing insulation by increasing the warranty period, in comparison with standard insulation.
- Lack of cost recovery of isolation due to lack of opportunities of the secondary from its use.

Comparative characteristics of some insulating materials ceteris paribus

Material	Coefficient of thermal conductivity	The heat transfer coefficient	layer thickness
Mineral wool quilt	0,046	8	4 sm
The foam polyurethane elastic	0,04	11	3,6 sm
Insulation of the type «URSA»	0,042	8	3,7 sm
"Keramoizol"	0,0025	2	1 mm

Physical and technical characteristics

Thermal conductivity, (W/m °C), no more	0,0025
The coefficient of heat transfer from the outer surface of the insulation, (W/m °C)	1,5
Drying time at 20 °C, h	24
Temperature range, °C	-50 to +200
Tensile strength, kg/cm ²	8,7
Elongation at break,% min	1,2
Density, g/cm ³	0,7 - 1,5
Mass fraction of solids, %	40 - 70
Water absorption coating for 24 hours,% by weight, not more	15,0
Water vapor permeability of coating, mg / (m*year* Pa), not more	0,02
Adhesion of the coating, MPa, no less:	
- To become	0,6
- For concrete	1,0
Frost resistance of coating cycles, not less	25
The coefficient of heat transfer from the outer surface of the insulation, (W/m °C)	1,5

Advantages over the standard insulation Keramoizol

1. **High resistance to atmospheric precipitation and temperature extremes. High resistance exposure to sunlight and radiation.**
2. **Record-low thermal conductivity.**
3. **Durable - guaranteed for 7 years. Period of operation for outdoor use for over 20 years.**
4. **The high degree of adhesion.**
5. **It has a corrosion-resistant properties, is waterproof.**
6. **High operating temperature up to +220 °C.**
7. **The implementation of thermal insulation is not labor intensive.**
8. **Ease of implementation of repairs and leaks.**
9. **Resistant to mechanical damage.**
10. **The ability to use insulation on pipelines and facilities with a complex configuration and in remote places.**
11. **Environmentally friendly and fire-safe material.**

Transport and storage

- "**KERAMOIZOL**" transported by all modes of transport in closed vehicles, according to the rules of carriage of goods, which are used to this type of transport. Transportation, preservation is carried out according to GOST **KERAMOIZOL** 9980.5.DBN D.1-4 and at temperatures above +5 °C.
 - During transportation. Loading, unloading composition must be taken to ensure the integrity of the package.
 - Water-based composition in winter must be stored in the compressed state in a closed room at a designated distance at least 1 m away from heating appliances. Is not permitted in the clear in the open air - composition cures for a maximum of 24 hours and lose the subsequent suitability for use.
 - Shelf life - 12 months from the date of manufacture.
 - Category of premises for storage of the composition - according NAPB B.07.005.
 - For transportation in winter is necessary to use transport with heating.
 - Freezing Keramoizol loses its properties.
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Payment details:

Recipient: LLC "SEVSNAB"

OKPO: 37051642

Bank: AT "Ukrsibbank" Kharkov

MFI: 351 005

P/s: 26001283559600

Companies, for VAT, can order an invoice for payment by bank transfer. The entire set of documents (original invoice, bill, tax bill) will be mailed (by registered mail upon receipt of your proxy). If necessary, will issue a contract of sale. When dealing with cash and cashless payments, and order quantity is a flexible system of discounts and payment terms.

Telephone and address information on the page are official. Get the goods from the official representatives. Other phone numbers link to this address - not official.

Director of "SEVSNAB"

Fomenko Natalya Aleksandrovna