

VAPORGLASS ETIZ – INSULATION MATERIAL SOME FEATURES

VAPORGLASS ETIZ is a solid porous material based on liquid glass, foaming agent and curing agent.

- ▶ Besides a unique composition, the know-how of VAPORGLASS ETIZ is in the stabilizer which allows to control the time of chemical reaction from foamy to solid porous structure.
- ▶ VAPORGLASS ETIZ was developed by Russian scientists, and has the Russian Federation Patent No. 2455252. All necessary certificates obtained. Technical certificate was issued by the Ministry of Construction, Housing and Utilities of the Russian Federation (Minstroy RF) in 2017.
- ▶ VAPORGLASS ETIZ and mineral insulation have similar fields of application and characteristics, but since their raw materials and structures are different, VAPORGLASS ETIZ more efficient in terms of sound insulation, fire resistance, environment-friendliness, and longevity.
- ▶ VAPORGLASS ETIZ and foam glass have a common raw material base but manufacturing technology is different, therefore, some features and fields of application for those materials are quite different.



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**THERMAL
ISOLATION**



**SOUND
ABSORPTION**



**NON-
COMBUSTIBLE**



**HIGH-
STRENGTH**

ETIZ

VAPORGLASS

THERMAL ISOLATION AND SOUND ABSORPTION MATERIAL

VAPORGLASS ETIZ cellular glass insulation is a rigid material with an open-cell structures. VAPORGLASS ETIZ insulation is non-combustible, vapour permeable and sound absorbent, and has high compressive strength. The material is intended for use in civil and industrial buildings and structures.



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VAPORGLASS ETIZ – IS A MINERAL COMPOSITION



ECOLOGICAL SAFETY

VAPORGLASS ETIZ is environmentally friendly for humans. VAPORGLASS ETIZ insulation is free of 'substances of very high concern' (SVHC). VAPORGLASS ETIZ does not contain of styrene, formaldehyde.



FIRE RESISTANCE

VAPORGLASS ETIZ is non-combustible. VAPORGLASS ETIZ limits the spread of fire. (Over 90 minutes in many cases during a fire). VAPORGLASS ETIZ is considered as a fire resistant construction material.



HIGH STRENGTH

VAPORGLASS ETIZ has high strength. Plates are highly resistant to deformation and will not be destroyed by the stress or pressure. They may be install continuous (homogeneity) layer (without using a joist or other separating element).



SOUND ABSORPTION

Sound insulation and sound absorption are ensured by the open-cell of material structure. The sound absorption has the high «A» class. The sound insulation index of the air noise of the construction out of VAPORGLASS ETIZ is $R_w=27$ decibel.



VAPOR PERMEABILITY

High water vaporpermeability allows the easy transmission of water vapor. VAPORGLASS ETIZ does not create conditions for condensation (accumulates) of supercooled atmospheric moisture. VAPORGLASS is a «breathable» material.



THERMAL ISOLATION

VAPORGLASS ETIZ is a highly effective thermal insulation. Even when plates is moistened with sorption humidification, it retains high heat-protective properties. High accuracy linear dimensions of plates are exclude the occurrence of "cold joints", which additionally increases the energy efficiency of the building.



EASE OF INSTALLATION

VAPORGLASS ETIZ is easy to cut, and easy to combine with modified cementitious adhesives and mastics. Plates guarantee a faster, more convenient and reliability installation, which saves on materials, labor costs and maintenance of building.

VAPORGLASS ETIZ HAS DIMENSIONS 600X 600 MM

Our products help to improve people's living conditions by providing thermal comfort, increased fire resilience and good acoustic environments.

Characteristics	STANDART	STRONG
Density, kg/m^3	120	180
Thermal Resistance, $\text{W/m}^2\text{K}$		
λ^*	0,045	0,050
λ_A^{**}	0,056	0,060
λ_B^{***}	0,061	0,067
Vapour permeability ($\text{mg/m}^2\text{hPa}$)	0,5	0,41
Compressive strength (pressure), tons per m^2	27	36
Non-Combustibility	Non-Combustibility	Non-Combustibility
Fire Resistance, minutes	-	50-150
Sound absorption, class	A1	A1
Thickness, mm	60, 100	50, 100

Conditions:

* $t=(283+2)$ K; ** mass fraction of moisture 4%; *** mass fraction of moisture 6,5%



Field of application of VAPORGLASS ETIZ includes inclined and flat roofs, mansards and facades, ceilings and partition walls, floors, saunas, etc.

APPLICATION OF VAPORGLASS ETIZ AS WALL THERMO INSULATION (SOME VERSIONS)



WALLS:
VENTILATED
FACADE



WALLS:
PLASTER
FACADE



WALLS:
FRAME
FACADE



WALLS:
FROM LOGS