



## HYDROPHOBIZATION OF BUILDINGS AND HISTORICAL MONUMENTS

### Description

The aim of this innovation proposal is production of the new hydrophobic protect coatings on the basis of industrial siliconorganic compounds.

### Innovative Aspect and Main Advantages

It has been developed by us hydrophobization silicon-organic solutions having high film adsorption on the surface and increased hydrophobic properties. Also, the material is get water resistance properties without loosing the general surface appearance and gas permeability properties, which in turn will increase storage length. The obtained silicon-organic hydrophobic liquids have the following characteristics:

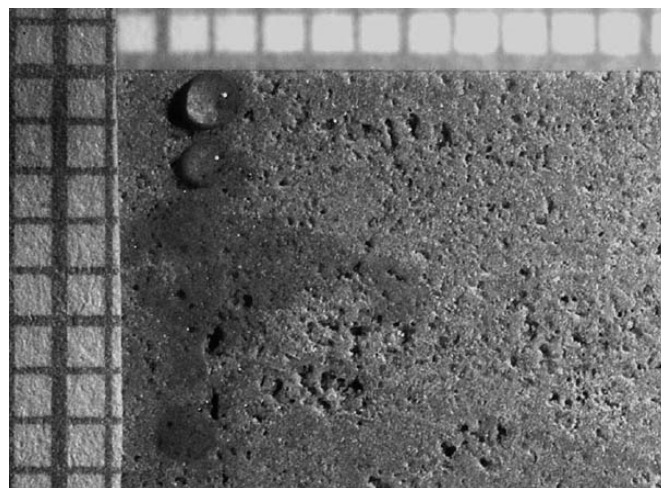
- The large capability of the absorption of coating formed on the surface and high hydrophobic properties;
- Appropriation to the material a water-repulsive property without aggravation of gas-conductivity;
- Porous building material (red and silicate brick walls, natural stone, concrete, and mineral cotton) has protection property from water absorption;
- Increasing of bright and durability of buildings and architect monuments coated with mineral dyes.

The application of hydrophobic silicon-organic compounds to architect monuments cause the increasing of their frost-resistant and durability. The surface developed by hydrophobic liquid during of minimum 10 years ensures the water-resistant property. The expenditure of the material is 0.2 -0.8 L/m<sup>2</sup>.

Even above mentioned chemical products, from which should be obtained hydrophobization solutions, are not produced in Georgia they are easily accessible and can be received from Russia or Ukraine. Realization of the innovation proposal can bring the benefit from beginning of the project.

### Areas of Application

The consumers of the innovative proposal can be the society of culture monuments protection, patriarch society and building organizations.



### Stage of Development

Laboratory tested; development stage. The innovative aspect of proposal has been studied.

### Contact Details

Tbilisi State University  
Department of Exact and Natural Sciences  
Contact persons: Prof. Mukbaniani  
Dr. Tatrishvili, Dr. Titvinidze  
0128 Tbilisi, Georgia  
Tel.: (+995 32) 25 0475  
Fax: (+995 32) 25 0475  
E-mail: [omarimu@yahoo.com](mailto:omarimu@yahoo.com)