

## Mineral Thermal Insulation Materials Based on Sodium Liquid Glass

**Authors :** Zin Min Htet, Tikhomirova Irina Nikolaevna, Karpenko Marina A.

**Abstract :** In this paper, thermal insulation materials based on sodium liquid glass with light fillers as foam glass granules with different sizes and wollastonite - M325 (U.S.A production) were studied. Effective mineral thermal insulation materials are in demand in many industries because of their incombustibility and durability. A method for the preparation of such materials based on mechanically foamed sodium liquid glass and light mineral fillers is proposed. The thermal insulation properties depend on the type, amount of filler and on the foaming factor, which is determined by the concentration of the foaming agent. The water resistance of the material is provided by using an additive to neutralize the glass and transfer it to the silica gel.

**Keywords :** thermal insulation material, sodium liquid glass, foam glass granules, foaming agent, hardener, thermal conductivity, apparent density, compressive strength

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