



Research Article











Received: March 2, 2025

Accepted: March 26, 2025

Published: April 13, 2025

ISSN 2304-6295

Thermal irregularity of connection joints in modular and block-modular enclosing structures

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Keywords:

Thermal Irregularity; Connection Joints; Modular Structures; Block-Modular Structures; Building Envelope; Numerical Modeling; Temperature Fields; Heat Losses; Thermal Protection; Energy Efficiency

Abstract:

The object of research is the thermal irregularity (non-uniformity) of connection joints in modular and block-modular enclosing structures of buildings. **Method.** The research involved numerical modeling of temperature fields in the connection joints using modern software complexes. A methodology for the quantitative assessment of thermal characteristics and the calculation of thermal irregularities was developed and applied. **Results.** The analysis of heat losses at the junctions of structural elements was conducted. The main factors affecting the thermal protection properties of the joints were identified. Practical recommendations for optimizing these joints and improving the thermal insulation characteristics of buildings were developed based on the modeling results.

1 Introduction

2 Materials and Methods

3 Results and Discussion

4 Conclusions

5 Fundings

This research was funded by the Ministry of Science and Higher Education of the Russian Federation within the framework of the state assignment No 075-03-2025-256 dated 16 January 2025, Additional agreement No 075-03-2025-256/1 dated March 25, 2025, FSEG-2025-0008.

References

References must meet the requirements <https://unistroy.spbstu.ru/en/references/>.