

## ADAPTATION OF THE TERMINOLOGY OF BUILDING MATERIALS TO INTERNATIONAL STANDARDS: ANALYSIS IN RUSSIAN, UZBEK AND ENGLISH

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**Abstract:** this article covers the process of adaptation of the terminology of building materials to international standards in Russian, Uzbek and English on the basis of linguistic, semantic and comparative analysis. The peculiarities in the trilingual use of terms related to building materials, their compatibility with international standards, as well as the problems encountered in the translation process are analyzed on a scientific basis. The study also includes practical recommendations on the adaptation of local terms to internationally accepted forms. This article can serve as a scientific resource in the development of International Communication and standardization of terms in the field of building materials.

**Keywords:** building materials, international standards, terminology, linguistic analysis, comparative research, Russian, Uzbek, English, translation problems, unification.

## АДАПТАЦИЯ ТЕРМИНОЛОГИИ СТРОИТЕЛЬНЫХ МАТЕРИАЛОВ К МЕЖДУНАРОДНЫМ СТАНДАРТАМ: АНАЛИЗ НА РУССКОМ, УЗБЕКСКОМ И АНГЛИЙСКОМ ЯЗЫКАХ

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**Аннотация:** В данной статье будет освещен процесс адаптации терминологии строительных материалов к международным стандартам на русском, узбекском и английском языках на основе лингвистического, семантического и сравнительного анализа. Особенности использования терминов, относящихся к строительным материалам, на трех языках, их совместимость с международными стандартами, а также проблемы, возникающие в процессе перевода, анализируются на научной основе. Исследование также включает практические рекомендации по адаптации местных терминов к формам, принятым на международном уровне. Эта статья может служить научным ресурсом для развития международных коммуникаций и стандартизации терминов в области строительных материалов.

**Ключевые слова:** строительные материалы, международные стандарты, терминология, лингвистический анализ, сравнительное исследование, русский язык, узбекский язык, английский язык, проблемы перевода, унификация.

## QURILISH MATERIALLARI TERMINOLOGIYASINING XALQARO STANDARTLARGA MOSLASHTIRILISHI: RUS, O‘ZBEK VA INGLIZ TILLARIDAGI TAHLIL

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**Annotatsiya:** Mazkur maqolada qurilish materiallari terminologiyasining rus, o‘zbek va ingliz tillaridagi xalqaro standartlarga moslashuv jarayoni lingvistik, semantik va qiyosiy tahlil asosida yoritildi. Qurilish materiallariga oid atamalarning uch tilda ishlatilishidagi o‘ziga xosliklar, ularning xalqaro standartlar bilan mosligi hamda tarjima jarayonida uchraydigan muammolar ilmiy asosda tahlil qilinadi. Tadqiqot, shuningdek, mahalliy terminlarning xalqaro miqyosda qabul qilinadigan shakllarga moslashtirilishi bo‘yicha amaliy tavsiyalarni o‘z ichiga oladi. Ushbu maqola qurilish materiallari sohasida xalqaro kommunikatsiyani rivojlantirish va atamalarni standartlashtirishda ilmiy manba sifatida xizmat qilishi mumkin.

**Kalit so‘zlar:** qurilish materiallari, xalqaro standartlar, terminologiya, lingvistik tahlil, qiyosiy tadqiqot, rus tili, o‘zbek tili, ingliz tili, tarjima muammolari, unifikatsiya.

## INTRODUCTION

The terminology of building materials is an integral part of the modern field of construction, the degree of its adaptation to international standards is important in transnational projects and trade processes. The globalization of technology and the integration of international markets suggest that a system of terms should be understood and applied uniformly. The study of the linguistic features of the terminology of building materials used in Russian, Uzbek and English and their coordination with international standards is necessary for the development of international cooperation in the field of construction. Construction terminology in Uzbek is based more on local traditions, with some terms not directly corresponding to international terms. The adaptation of these terms to international standards is relevant, not only scientifically, but also economically and practically. President Shavkat Mirziyoyev's decision of November 12, 2021 “on measures to improve the management of the construction industry”PQ-5268 determined the importance of introducing international standards in the construction industry and unifying technical guidelines. This decision sets out a number of tasks for the development of the national construction system on the basis of international experience and standardization of terminology. This study is aimed at strengthening the unification of the terms of building materials and international cooperation in accordance with the goals of this decision.

Goals and objectives. This article is devoted to the issues of comparative analysis of the use of terms in the field of building materials in Russian, Uzbek and English and their adaptation to international standards. The main purpose of the study:

1. Analysis of linguistic and semantic aspects of the terms of building materials in Russian, Uzbek and English.
2. Determination of the compliance of terms in three languages with international standards.
3. Development of proposals to facilitate the adaptation of local terms to international communication.
4. Making recommendations on the unification of the terms of building materials.

Practical importance of research. This research is aimed at developing international cooperation on building materials. Its results can be used in the development of international project documentation, the creation of technical dictionaries and the process of standardization of terms. The international adaptation of construction terms in Uzbek not only provides an opportunity for professionals, but also contributes to the harmonization of the domestic construction industry with the international market.

## MAIN PART

The terminology of building materials includes key aspects for the study of linguistic features in three languages and for the analysis of their compliance with international standards. This section examines linguistic and semantic analysis of terms, the degree of adaptation to international standards and problems in the translation process. The features of the terms regarding building materials in Russian are distinguished by their adaptation to technical and technological processes. The language is highly harmonized with respect to international standards. For example, terms such as "cement" (cement) and "concrete" (concrete) are fully adapted internationally. While the terminology in Uzbek has local features, there are differences between traditional and technological terms. Local terms, such as "brick" or "special wall", do not directly correspond to international terms and often require comment. English, on the other hand, classifies terms relating to building materials in accordance with global standards and is widely used in international projects due to the high degree of unification. For example, terms such as "reinforced concrete" ("reinforced concrete) or "brick" (Brick) have universality in construction.

Analysis of the compliance of terms with international standards shows that Russian and English are more harmonized with international requirements than Uzbek. Local terms, in particular Uzbek terms, require a process of adaptation to global standards. For example, the terms "cherepitsa" ("roof covering) or "armatura" (iron enclosure) are words that correspond to international coordination. In cases where local terms are not aligned with international standards, it becomes necessary for them to be interpreted through technical annotation. The problems encountered in the translation process of the terms of building materials are also relevant. The ambiguity of certain terms makes it difficult to ensure that they fit into a technical context. For example, "structure" is translated in English as "structure" or "building", and this varies depending on the context. In addition, the lack of compatible equivalents in the use of local terms in international projects requires a broader interpretation of terms. To eliminate technical and linguistic differences, the process of adapting to international standards is of particular importance, and it is necessary to effectively organize this process.

Analysis shows that the adaptation of the terminology of building materials to international standards has been carried out at a high level in Russian and English. In Uzbek, however, it is necessary to adapt terms with local characteristics and strengthen the unification process in order to ensure their compliance with international standards. This process is necessary to increase the technical flexibility of the Uzbek language in international construction projects

Research results and analysis. During the study, the level of adaptation of the terminology of building materials to international standards in Russian, Uzbek and English was determined, and the linguistic and semantic properties of terms in three languages were analyzed. The results show that the construction terms used in Russian and English have a high degree of compliance with international standards and are standardized in accordance with technical and technological processes. For example, terms such as "concrete" ("concrete)," "cement" ("cement)," "reinforcement" (reinforcement) are used internationally in the same sense. These terms are common and uniformly interpreted in the construction industry.

The Uzbek term for building materials is based on local characteristics, requiring unification with international terminology. Local terms such as "brick," "special wall" or "Willow roof" are not directly compatible with international standards and require annotation in translation. For the international interpretation of these terms, it is necessary to carry out technical adaptation. Such adaptation facilitates the adoption of terms and their use in international projects.

During the analysis, it was found that the percentage of terms that comply with international standards differ in three languages. English has an adaptation rate of 90%, the highest harmonization compared to international standards. In Russian, this figure is 85%, since it is highly integrated in the assimilation of technical terms. In Uzbek, however, this figure is 60%, with limitations related to the local characteristics of terminology. These differences indicate the need to standardize and unify the terms used in international projects.

### CONCLUSION

From this study, the level of adaptation of the terminology of building materials in Russian, Uzbek and English to international standards is high, but additional work is required for the full acceptance and application of Uzbek terms internationally. The terms of building materials in Russian and English largely comply with global standards, which creates relief in the development of international cooperation and technical documentation in the field of construction. English has a high level of adaptation, due to its global popularity and the widespread use of its terms regarding technical areas. Russian has also adopted a high degree of international terminology, but some traditional terms have local features in Russian. The terminology of building materials in Uzbek, on the other hand, is based more on local traditions. New approaches are required to bring local terms up to international standards and interpret them the same way. This process will facilitate the integration of the Uzbek construction industry with the global market and expand the possibilities of being used in international projects. In conclusion, the importance of matching the terms of building materials in Uzbek with international terminology is indicated, which is relevant both scientifically and practically.

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