

Research On Application Of Green Building Materials In Construction Of Civil Engineering

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Abstract: In the construction of civil engineering, the cost of traditional building materials is relatively high, and the safety performance is low. The carcinogens contained in some substances have been denied by the society. In the modern era when people's living conditions are improving, green building materials occupy obvious advantages. The materials are relatively more environmentally friendly, healthy, and in line with the actual needs of modern scientific development. Therefore, green building materials are gradually used in the construction stage of civil engineering. In this paper, the author first expounds the necessity of green building materials in the construction of civil engineering, then studies the problems in the use of green building materials, and finally analyzes its use strategies.

Introduction

Economic development gradually drives the living standards of residents, and the development of urban buildings is also being adjusted according to demand of the market. In the past five years, the conviction that lucid waters and lush mountains are invaluable assets has been gradually recognized by people. How to use greener and environmentally friendly materials in the construction industry has always been the pursuit of the industry. The pollution and waste of traditional materials have aggravated environmental pollution. Green building materials can achieve low-carbon and environmental protection and realize recycling. It not only avoids the construction waste caused by the discharge of waste water, but also ensures people's physical and mental health. In addition, the investment cost is relatively low, and it is in line with the modern development concept. Therefore, the analysis of its practical application value can help to solve practical problems.

1. Necessity Of Green Building Materials In Construction Of Civil Engineering

The recognition of green buildings by modern residents is increasing. With the improvement of living conditions, the problems of living environment have gradually been paid attention to. They not only require "no rain leakage in rainy days" when people live, but also require green and environmental protection and modern low-carbon life. The same is true for house purchases. Greenness and safety have become the preferred standards. Therefore, in the construction phase of civil engineering, it is necessary to build houses with more green and environmentally friendly materials. Specifically, green building materials can largely avoid carcinogenic problems caused by metal objects, and will not form waste water during the use process, which is environmentally friendly. Most importantly, green building materials can be recycled, which avoids the stacking and waste of construction waste and is also recognized by the construction party.

Energy is the ladder of human progress, and solving problems of energy is an important task for all walks of life in modern times. Construction resources also need to follow the path of sustainable development, and recycling is recognized by the world. With the development of the construction industry, the stacking of construction waste has gradually troubled the construction party. It is

meaningful to adopt green and environmentally friendly building materials in the construction of civil engineering to ensure the health problems of consumers' living, and achieve recycling, pollution-free and cost controlled. From the national level, environmental protection is its ultimate need, and it is worthy of affirmation that green building materials can solve environmental pollution. The construction industry itself is a pillar enterprise of the national economy, and it is a new breakthrough in the industry and also a technological advancement to replace traditional building materials with green building materials. On the basis of reducing waste of resources, green and environmental materials can improve the ladder use of materials, which plays a positive role in the overall economic transformation.

2. Problems Of Green Building Materials In Construction Of Civil Engineering

During the construction, green building materials gradually enters the construction site. However, they have their own characteristics during construction, and the actual construction operation should be appropriately improved in accordance with the construction conditions. Such changes have caused a bottleneck in the construction. The construction itself needs to consider cost budget and cost recovery. Green and environmental building materials cannot be fully used in actual applications. Considering safety and environmental protection, they cannot be perfectly integrated into it at the moment. In addition, when selecting materials, there are many types of green building materials and their functions are quite different. It is necessary to have a certain foundation to choose building materials that meet their actual needs. In particular, new green and environmental materials have shown certain difficulties in obtaining, and there are many products that need to be customized, and some of them need to be customized according to the needs of construction.

3. Use Strategy Of Green Building Materials In Construction Of Civil Engineering

In view of the characteristics and problems of green building materials, appropriate strategies can be adopted for its improvement. In the actual use, interdisciplinary talents are required to solve this problem when integrating green building materials with buildings in the construction site. These talents need to master the relevant knowledge of green building materials and the relevant knowledge of housing construction design, and then integrate the two major types of knowledge into the construction to make practical improvements to achieve better integration. The whole process is inseparable from the efforts of experts and scholars, and it requires multiple attempts to explore by combining rich architectural experience and a full understanding of materials.

When using materials, it is necessary to master the properties of the materials. When selecting green building materials, the construction company needs to deeply understand the characteristics of materials. For example, light-weight steel construction materials, relatively speaking, has good stability and has a wider application in major construction projects. The use of these materials can greatly improve the safety performance of the building. Relatively speaking, these materials also have a certain degree of recycling. According to the standards proposed by China for environmental protection, this material is within the scope of the standard. Therefore, in construction of civil engineering, light-weight steel construction materials have a more extensive use. The green materials needed for external construction require a certain degree of thermal insulation. However, the green building materials themselves have relatively good thermal insulation. With the use of such materials with thermal insulation in external buildings, the temperature in the summer house can be cool. The reduction of the indoor temperature is a saving of resources. A comfortable indoor temperature can effectively avoid the use of air conditioners, which can effectively reduce the greenhouse effect and also make a positive contribution to the use of electricity in summer. There are also green building materials for interior decoration materials. In indoor buildings, traditional building materials are rejected by people due to the emission of various harmful gases. Modern green building materials will not accumulate to form toxic gases. They may also purify the air to achieve the functions of heat preservation and purification to a certain extent. In actual construction, it is extremely important for the material selection. Traditional construction materials form a large

amount of dust or pollutants, and the indoor and outdoor environments are affected, causing harm to human health. Among modern green environmentally friendly materials, bamboo structures have received more and more attention from construction parties. This structure can effectively solve problems of all dust, has high value for construction personnel and people living in the building, and is also in line with modern environmental protection concepts. Although the bamboo structure satisfies the characteristics of environmental protection, safety, and pollution-free in the use process, it requires a lot of manpower and material resources to obtain bamboo, which needs to be paid attention to. Of course, the materials are two-sided, and they have obvious advantages and limitations. Therefore, in the entire construction of civil engineering, green building materials can be selected appropriately and reasonably according to the actual situation of the project, and proper selection and matching can achieve the maximum effect of green building materials.

Finally, green building materials still need to continue the top-level design. The characteristics of the materials are two-sided, and the advantages and disadvantages constitute the whole material. In the proper use of the construction party, it still needs the guidance and attention of the government and the industry. The government should optimize the policy appropriately, strengthen the management, take the top-level design of green building materials as the final guidance, carry out macro-control according to the industry planning, and promote the green building industry in China. In this way, the construction of civil engineering can also go to a higher level. At present, the cost of green building materials is relatively high, and it is difficult to achieve large-scale control. To solve the problem of high cost and promote the application of green building materials in civil engineering, on the one hand, the staff should carefully study and explore the performance and technology level of materials. On the other hand, there will be certain customized products on the construction site, which will gradually realize the factory production level in the future. So in any case, improving green building materials needs to be supported from the top-level design.

4. Conclusion

In the construction of civil engineering, the use of green and environmental building materials can receive the policy support of the government to realize the effective use of materials, avoid various safety problems and health problems from the building materials, and truly realize the power of science and technology. However, there are also some problems, such as limitations the purchase of raw materials and on-site construction. Therefore, the government can optimize the development of the whole enterprise from the top-level design, and give more convenience to the construction of green building materials. When selecting various materials at the construction site, it also needs to select targeted materials according to the characteristics of materials and the positioning of housing construction, so as to get the effective and reasonable use of green building materials in construction of civil engineering.

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