

The Application of Innovative Technology for Improvement of Heat
Insulation Performance on the Steel Deck Roofs

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Abstract

The colored steel deck plates are often used on the roof of factory building and the extension of the building. The colored steel deck plates have the advantages of structure safety and short construction time. The metal materials are lack of good performance for heat insulation. The insulating material linings are usually placed on the inner side of the deck roof in order to reduce the room temperature. The air conditioners cause a great energy loading problem. The subjects of energy saving and carbon reduction are so important today that the research for heat insulation improvement of steel deck plates must to begin immediately. The research used the innovative technology of TRIZ theory to explore the new insulating coatings on the colored steel deck roofs. The reflective rate of the steel deck coatings has been raised and the insulating ability has been improved as well. The goal of energy saving was achieved in the research.

Keyword : Innovative Technology, Heat Insulation Performance, TRIZ
Theory