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Review of Roof Thermal Insulation Practice and Preferences in Terrace Housing in Malaysia

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Abstract

Terrace house is the most common house type of housing in Malaysia. However, it does not fully cater as a shelter in Malaysia’s hot and humid climate as studies have shown that the inside temperature of a terrace house is much higher than the ambient temperature. Since terrace house receive most heat from the roof, this paper presents the importance of installing roof thermal insulation in terrace housing and the current practice in Malaysia. Further study on this project is carried out through the social survey of the practice and preferences among terrace housing occupants in Malaysia.

1.0 Introduction

The traditional Malay house in Malaysia that was designed and built by our folks is a near-perfect design as it is extremely suitable for our local climatic condition which is warm and humid throughout the year. They built the house to fit their own lifestyle and also to fit in the local climate. The houses use lightweight construction and high insulation materials such as timber, bamboo, and attap. These breathable materials retain or conduct only a small amount of heat into the building [1].

As time goes by, Malaysia have made a lot of infrastructure improvement in terms of transportation, urban planning and housing, supplies as well as building construction and technology. New technology and techniques has allowed the construction sector to built without restraints forced by limited materials and places. The result of this approach is the ‘International Style’. The style has quickly become a symbol of wealth and progress because it was spread by the influential societies of industrialization. It is unfortunate to the users and nation as most of them accept the modern European style without considering the tropical climatic and social conditions of Malaysia. [2]