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APPLICATION OF DOUBLE SKIN FAÇADE (DSF) AND ELECTROCHROMIC GLASS IN BUILDINGS IN TROPICAL CLIMATE

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Abstract
One method in terms of architectural technology used to minimize the negative impact of overheating is to design a building with double skin façade and integrating it with electrochromic glass. The purpose of this research is to reveal whether the use of a double skin façade and the application of electrochromic glass would be preferable for buildings in tropical climates, in terms of obtaining aesthetic points while not having to sacrifice thermal comfort nor committing energy waste at the same time. The data in this research is obtained with qualitative – descriptive comparative method, which is applied for room temperature measurement with a computer simulation software, based on pre-existing theories, reference standards and material specifications from existing manufacturers. The results of this study conclude that the application of double skin façade in a building does make a significant contribution to achieving thermal and lighting comfort. Both profiles of space reduction with the use of electrochromic glass in buildings in tropical climates are able to reach ideal temperatures in comparison to when ordinary glass material is applied. And third, it is proven that the double skin façade technology and applying electrochromic glass on a building can provide significant energy efficiency for long-term projects.

Keywords: **Double Skin Façade; Tropical Climates; Electrochromic Glass.**