

The glass facades of the future architecture and the ways of its tightness

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Introduction:

The recent technological advances have affected the architectural glass facades in the formation, as well as the application of environmental control techniques, and influenced by aesthetic and economic factors and this confirms that the provisions of glass facades face many difficulties and most of these obstacles lie through multiple natural effects such as (air force and water rush And wind loaded with dust and the impact of natural sunlight) different regions and countries and we in Egypt we find the applications of glass facades architectural faces many difficulties and lie most of those constraints that we find in glass destinations at most through the effects of medicine Multiple such as Rodeo (Guo air and water and the rush of wind laden with dust and the effect of natural sunlight) in the interfaces.

To achieve this must be studying:

- 1- Studies of façade locations shall be carried out and the special functions requirements shall be determined to meet the expectations of building users.
- 2 - The role and responsibility of the designer of facades in the processes of tightening.
- 3 - Access to the most important results of the rules of design guidance for the tightness of the facades.

A study of the location (requirements) of the facades:

Before we begin to study the site of the glass facades, we must first know the functions of the facade and see the occupants and users of the building that the facade with walls protect their internal environment from exposure to the external environment if it would be logical to design the building in a way that surrounds them and contains them (not only glass and aluminum walls) to address their concerns. The facade is not its function to withstand the loads of the building but acts as a building casing, protecting the internal parts from external forces.

Results:

The research found that glazing in the glass facade depends on several tests that must be achieved to give the most comprehensive systems.

- 1- Testing (climate - shading devices - energy conservation - air and water leakage)
- 2 - Glazing test and renewable energy through the photovoltaic matrix and solar cells.

Recommendations:

- 1- Considerations of technology and its impact on future architecture in general and the thought of design and provisions of facades in particular of fertile and modern topics, which is still not clear the extent to which it will reach us and to what extent we will benefit from it, and therefore it is recommended to pay attention to it as an effective contemporary technology, and increase and intensify studies in their applications And their possibilities.
- 2 - The strength of the technology of glass design and implementation in the facades is to achieve direct communication through nature to take advantage of them to the fullest extent possible and activate these possibilities and study how to achieve compatibility between the building and its users and its surrounding environment through the development of design thought and interaction systems for raw materials used in the building to achieve a high efficiency and effective interface.
- 3 - The study recommends the use of the results of this research when building urban communities in Egypt commensurate with the natural environment and its elements and the application of considerations to achieve an ecological glass architecture appropriate to the Egyptian environment and in accordance with the benefit of the characteristics of that environment and provisions against negative and harmful.

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