

Flexible glass and its effective role in architecture

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Introduction;

Our Arabic nature is characterized with cultural personality and revolutionary thinking that appeared clearly throughout the years and met respect and appreciation from all different cultures. So maintaining the cultural identity is considered one of the most known Arabian cases that is subjected to study and research out of its importance and danger on our Arabic nation especially at the time of globalization and the new international system which we live in, in addition to the information revolution and the huge technological progress that the western countries are blessed with.

Under the shadow of the technological progress and with the expansion in applying the advanced technology to cope with the continuous development in the functional characters of different and developed usage of glass appeared the need to new types of glass.

One of the American companies has produced new type of glass called flexible glass which is glass with minimum thickness doesn't exceed 0.1mm. And has the flexibility (roll to roll) beside being characterized with high mechanical features like being able to handle shocks and against breaking beside some special visual and electrical qualities which made him usable at different industrial and advanced technology fields, such as in architecture "architectural glass interfaces" and sun boards on buildings roofs and industrial areas as well. Also the possibility of using it in fixing the architectural holes that depend on bending the glass products, internal architectural elements.

From here the research is trying to confirm the Islamic architecture identity and its unique feature that the eyes adopt and realize. We tried to benefit from architectural elements in adapting the advanced technology in producing flexible glass to confirm the Arabian identity in architecture in modern architecture through creative ways.

The research problem was in answering this question:-

How to realize fusion between Islamic architecture features and advanced technology in producing the flexible glass in the making of design for architectural glass interfaces and adapting it to serve our Arabian communities ?

The aim was determined as:-

- 1- Putting methodology to connect the advanced technology in producing flexible glass outside and assuring the identity of our Arabian communities .

To achieve the aim and solve the problem we had to study the following;-

First; study flexible glass and ways of production.

Second; experimental and analytical study.

Third; study to the methodological steps of the design process of architectural interfaces and presenting designing ideas.