

## **Vacuum Coated Glass Products and Approaches in Şişecam**

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Silver layer with averagely 8-16 nm thickness is located on the low emissivity architectural coated glasses that address to commercial applications with basic layer configuration. In principle, a coating with high transmittance in the visible region and also a low total solar energy with a selectivity coefficient above 2 and while also responding aesthetic considerations should consist of more than one (at least 3 or more) number of the silver layers that needs a precision design and film properties.

Electrochromic smart windows are able to alter the light and thermal transmittance when a current is applied, so greatly reduce energy consumption for cooling, heating and lighting. The trend of using the increasing amount of windows for construction and automotive designs, change in the building rules, and the increase in the adoption of green building standards lead to constitute the essential design component in order to manage the earnings ratio of heat and light. Smart windows cater to those various market trends.

Vacuum Coating Directory section within Şişecam Science and Technology Centre is currently dealing with passive system, low-emissivity heat and solar control coatings for architectural applications, heat treatable (temperable-bendable) coatings for architectural and automotive applications, primal solar cells, transparent conductive oxides (TCO's) used as electrodes in electrochromic system applications, interference mirrors in the automotive and aesthetic usage, and electrochromic, thermochromic and thermo-electrochromic systems for dynamic solar control.

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