

Electrochromic laminated glass*

The innovation

The durability and UV stability of switchable glass has limited its market growth for the last ten years. The innovative electrochromic glass enables the possibility of switching between two transmission stages. With very small direct current at a low volt range, the glass changes colour from transparent to deep blue. The final stage and any intermediate stage of colouring is maintained when the current is turned off, so that energy is only needed during the switching procedure. The maximum switch distance is comparatively large and can be moved to both transparent and coloured condition. The long-term stability, especially in terms of temperature as well as UV resistance, has already been proved. This facilitates broad application in the architecture industry.

Advantages at a glance

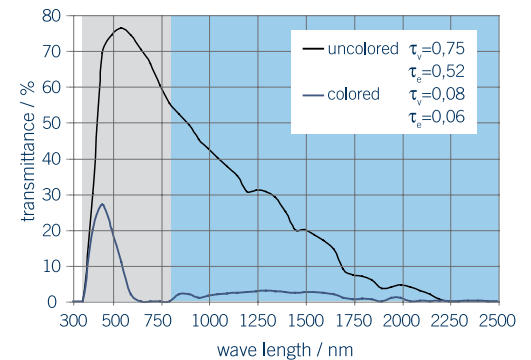
- Translucency of the pane laminate can be adjusted between 8% and 75%
- Infinitely variable darkening to any intermediate condition is possible
- High transmission (decoloured), due to low amounts of tungsten oxide
- The near infrared range of the solar thermal radiation is switched. Thus, the entire energy transmission level (a part of the heat from incident light) can be changed
- Coating manufacture by electrochemical plating from aqueous solutions
- Extremely low manufacturing costs

Keywords

- Switchable glass
- Smart glass
- Special purpose glass
- Ionic conductive PVB foil
- Electrochromic glazing

Patent status

The invention is filed internationally and partially granted. It is owned by Dritte Patentportfolio Beteiligungsgesellschaft mbH & Co. KG. The application was filed in January 2001.



To acquire a licence for this new technology, please don't hesitate to contact us!



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