Study of flat glass with a layer of photochromic glass

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Since the photochromic glass was first made by Corning Co. in 1960, it has attracted much attention due to its excellent properties. However, because of its high cost and difficulties in the manufacturing process, till now it has been used only in the field of spectacles. The improvement of the coating techniques and the discovery of new ones, allowed the obtaining of variable transmission glass entities, depending on the light intensity.

This paper presents two kinds of tehnological process suitable for the obtaining of this coated glass entities.

Also, there are presented the properties of a commercial float glass and a photochromic glass sintetized in the National Glass Institute (viscosity-temperature curves, thermal expansion coefficient, characteristic temperatures T_g and M_g).

The results demonstrate that this two glasses matched well to be used together in the fabrication of variable transmission glass entities. The darkening and fading rate for these entities has a great value.