

THE GREENHOUSE EFFECT IN YOUR HOME

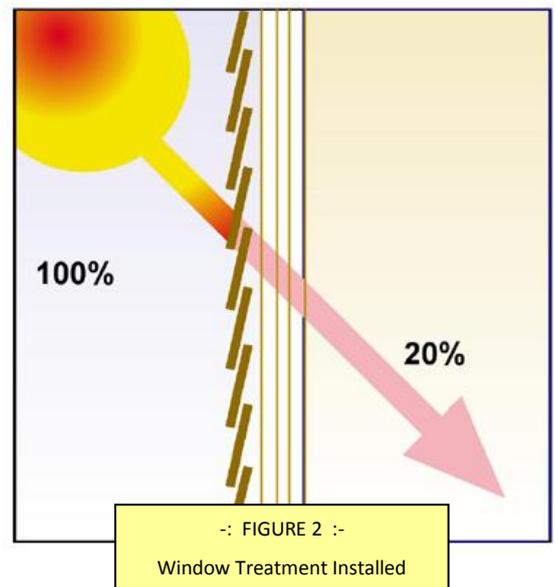
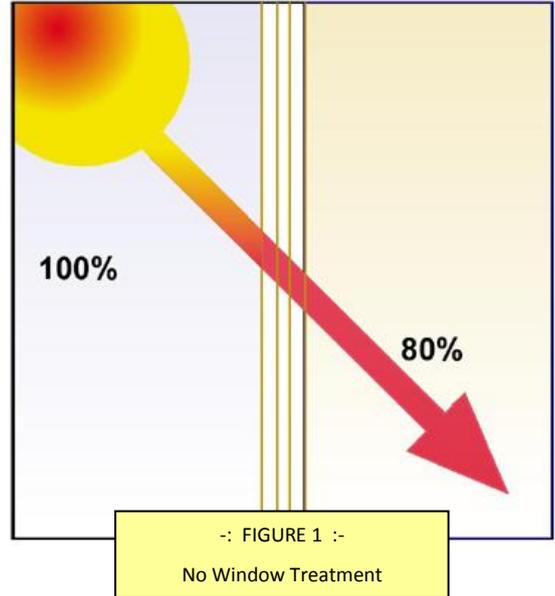
ROLLER SHUTTERS

It is a well-known and undisputed fact that external solar protection devices are superior to internal systems with respect to the energy transmission rate and thus to the room temperature.

The opinion that thermal rays cannot penetrate glass to cause the greenhouse effect is only partly true they can penetrate normal window glass relatively easily. Once the rays have penetrated the window, they are absorbed by the surfaces in the room and then emitted again in the form of heat radiation.

It is almost impossible however, for these long wave rays to penetrate the glass (outbound). They are either absorbed by the glazing or reflected back into the interior of the room. It is impossible at any rate for them to return outdoors unimpaired. This effect is called heat trap or greenhouse effect.

If the solar protection devices are then brought into play, it is important to know where they are installed. If they are installed in the front of the glazing (exterior solar protection eg; roller shutters), the rays of sunlight hit the solar protection device first, are partly absorbed (the rest either penetrate the glass or are reflected) and heat up the solar protection device.



Source: Extract from "The Shutters and Blinds Expert 1/2000. Study carried out by Mr Ralf Simon (graduate engineer) Head of Advanced Development/Value Analysis and Development Workshop at Warema Renkoff GmbH, and Mr Hans Albrecht Kohlmann (graduate engineer) Head of Resurch, Development and Application Technology at the Marktheidenfeld firm.