Neil Gordon - How window coverings assist energy reduction

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Energy reduction through window coverings is achieved in two ways. One through the reduction of solar energy entering a space and thereby reducing the amount of energy used for cooling and the second way through the reduction of thermal energy leaving the space and thereby reducing the energy required for heating.

In summer, most regions need to filter out UV radiation from entering interiors due to the intense heat it creates. While modern glazing can be made to allow in only visible light (filtering out UV and infrared radiation), visible light also produces heat. Materials inside the building absorb heat from the visible light, causing the temperature of the materials to rise. As the temperature rises the materials produce thermal infrared radiation, which is then prevented from leaving the interior through the windows by the UV and infrared blocking glazing.

Thermal heat reduction is achieved through creating an isolating space along the window with window coverings. This is calculated through the R Value or measurement of the heat absorbed by the material. R Value is the measure of apparent thermal conductivity and the higher the R Value the less heat is lost through the window or assembly.

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