

Environmentally Sustainable Design and Energy Efficiency Information Sheets

Information Sheet – Shading

Shading of your dwelling and outdoors spaces can assist with reducing summer temperatures, improving the comfort of your building, and saving energy. The shading of glass is critical to assist with minimising heat gain, as one of the greatest sources of heat gain in a dwelling is unprotected glass. Once heat passes through the glass, it becomes absorbed by building materials and furniture, effectively becoming trapped and creating a greenhouse like effect.

- Effective shading can include eaves, shutters, window awnings, pergolas and plantings.
- Eaves which are correctly designed can be some of the most simple and cost effective shading methods on the northern elevation of your dwelling.
- When choosing the appropriate shading devices, ensure that they are effective in reducing the summer heat, but that they do not block out the winter sun. Installing adjustable shading devices will allow for seasonal variation.
- External shading of windows is more effective than internal shading, though both combined will give the best results.
- External shading devices help to reduce the transfer of heat through the fabric of the building. Internal shading devices can assist with reflecting a small amount of heat which has already penetrated the buildings fabric. However once the heat is already in the building, it is harder to enable a more comfortable building temperature.
- The most efficient types of shading differ depending on the orientation of your windows
- North facing windows:
 - Fixed horizontal shading devices such as eaves and pergolas
 - Adjustable external shading such as awnings, blinds and roller shutters
- East and west facing windows:
 - East facing windows can be a major source of heat gain in the morning during the summer time, while in the afternoon, it is the west facing windows
 - Best shaded by adjustable external shading devices such as awnings, blinds, louvers, shutters or angled metal slats. Having adjustable devices allows flexibility to make adjustments as required by weather conditions and comfort levels.
- South facing windows:
 - Don't require shading in summer to the same extent, as they receive very minimal sunlight
 - South facing windows are best used for ventilation purposes
 - In winter time, south facing windows can lose heat, so windows should be double glazed, and heavy curtains and pelmets should be included in design.

