



Tips for Creating Shade in the Environment

Shade provides important protection from the sun. Hats and sunscreen are not 100% effective at preventing sunburn, so slip into some shade and protect yourself and your staff members. Shade makes being outside in the sun safer and more comfortable.

But, you can still get sunburnt in the shade. The sun's ultraviolet radiation can reflect off surfaces such as concrete, water and sand. The best way to protect against ultraviolet radiation is to use shade together with clothing, hats, sunglasses and sunscreen.

Considering building a shade structure for your workplace?

Effective shade design should ensure the shade:

- Falls **where** it is needed e.g., covering the seating area.
- Falls **when** it is needed e.g., the expected time and duration of use.
- Provides at least 94 percent reduction in direct ultraviolet radiation – use an excellent ultraviolet barrier shading material and place it so it shades people as the sun moves across the sky.
- Protects against indirect (scattered) ultraviolet radiation i.e. the view of the sky should be
- restricted. This can be done by keeping the edges low. Adjacent landscape, buildings, fences, trees and planting can also be used to further reduce this 'sky view'.
- Is comfortable and attractive so people will use it.

What shading material is best?

Common shading materials are solid (corrugated steel roofing or timber shingles), PVC membrane, shade fabric (sails or pavilions), transparent roofing (polycarbonate or laminated glass), and natural (planting).

Consider the following factors:

- Ultraviolet radiation barrier – material should have a ultraviolet (UV) rating over 94 percent. Ensure clear roofing material is polycarbonate with a guaranteed ultraviolet radiation rating. Normal glass does not offer good protection; use laminated and/or specialty glass.
- 'Warm shade' – New Zealand's sea breezes mean our climate is temperate and, therefore, shade can often be too cool for comfort. The easiest way to provide ultraviolet protection and warmth is to use a transparent material.
- Wind – consider the impact of the wind on the structure and on the comfort of the users.
- Multi-purpose – the use of an impervious shading material also creates a dry outdoors space in rainy weather.
- Cost – shade fabric is generally cheaper, but this needs to be weighed against the added advantage of using a transparent roofing material to create a wet weather facility.

Information sourced from: <http://www.sunsmart.org.nz/being-sunsmart/creating-shade>