



Reflectivity from Existing Building Surfaces

In response to your recent enquiry we set out some general information regarding glare and BlueScope Steel's building materials. We trust that you will find the following information of use.

Please note that the information provided is general in nature and may not be appropriate for your individual situation. This information sheet does not constitute professional advice. We recommend that you seek professional advice if you have particular issues of concern.

What is glare?

Glare from buildings can result from the reflection of sunlight from any surface. New glossy surfaces are particularly prone to glare, including steel roofs, glazed terracotta tiles and concrete tiles. The degree of glare observed will depend, amongst other things, on the age and type of material used, its location, position and gradient. The particular time of day and year also affect glare due to the constantly changing position of the sun.

Glare reduces over time

An important point to note is that all new roofing materials (steel, concrete tiles, glazed terracotta tiles) have a glossier surface when first installed.

Over time the surface dulls reducing the resulting glare. This means that once experienced in the year the mirrored reflection of the sun caused by glare will return in a year's time, upon which the reflecting material will have also aged a year losing gloss and subsequently reducing the amount of glare.

Dealing with glare

On occasion complaints have arisen between neighbours regarding glare. Understanding the nature of glare is important in the resolution of any complaint.

Given the seasonal and diminishing nature of glare, glare is not a permanent issue in most cases. If glare does not diminish over time, the owner or neighbour may consider shielding strategies, such as installing a fence, trellis, outbuildings, attachments to roof structures or planting fast growing shrubs or trees.

Risks of over-painting

Over the counter paints for roofing can have the same (if not higher) gloss level as surfaces made from COLORBOND® steel. BlueScope Steel recommends against over-painting for this reason. Over-painting will also void the applicable BlueScope Steel warranty, as it reduces the durability of the paint-finished surface.

Colour choice and the environment

Light coloured roofs can be 30°C cooler on the surface than dark coloured roofs. This can result in numerous benefits for the building owner and the environment. The benefits of light coloured roofing include:

- Improved energy efficiency and thermal comfort. The Building Code of Australia now has insulation concessions to encourage the use of light coloured roofs on the basis of energy savings.
- Minimised peak summer energy loads and improved summertime insulation. Most Australian cities are struggling to meet peak summer electrical loads. Light coloured roofs have been part of Florida's program to curb spiralling summertime electrical demand. BASIX NSW encourages light coloured roofs for this reason.



- Reduced urban heat islands caused from dark materials warming local air temperatures. Lower local air temperatures can reduce summer energy loads on all buildings and the potential for smog.
- Improved roof lifespan due to less thermal stress. Reduced thermal stress improves roof durability through reduced temperatures and by causing less thermal movement resulting in less chance of air or moisture leaks.
- Cost and energy savings for the household.

Summary

Light coloured roofs save the building owner money and are good for the environment helping with the growing need to reduce greenhouse gas emissions.

Reflectivity is a complex and subjective issue. Understanding the nature of glare, that it is for a short period of time and reduces with each year that passes, may help to solve any complaints that may arise or help to put it in perspective.

It is clear that where a genuine reflectivity complaint exists a balance must be met between the potential impact of the complaint, the impost on the owner of the roof and the environmental benefits offered by the light coloured roof.

BlueScope Steel hopes that the above information will assist you in your dealings with other interested parties.

We wish you well in achieving a successful resolution.



9 320075 045425