Australian Window Association

Windows & Door Performance Accreditation

Your Guide to Complying with the Building Code of Australia

www.awa.org.au
Building Code of Australia Requirements

Under the Building Code of Australia, window manufacturers are required to produce windows and glazed doors that meet mandatory minimum specifications for structural sufficiency and water penetration resistance under Australian Standards AS2047 and AS1288.

Energy efficiency provisions state that external glazing performance data must be determined in accordance with the guidelines of the AFRC (Australian Fenestration Rating Council).

Windows

Windows are possibly the most complex and interesting elements in the fabric of our homes and buildings. They provide light and fresh air, as well as offering views that connect our interior living spaces with the great outdoors. However, windows can represent a major source of unwanted heat gain in summer and significant heat loss in winter.

Energy Efficient Windows

New framing and glazing materials have changed the energy performance of windows in a radical way. Energy efficient windows will make your home or building more comfortable, dramatically reduce your energy costs and help to create a brighter, cleaner and healthier environment.

Window Energy Rating Scheme (WERS)

WERS rates the energy impact of residential and commercial windows in homes and buildings. Windows can severely impact the thermal and cooling loads of a building. Up to 40% of a home’s heating energy can be lost and up to 87% of its heat gained through windows. Improving their thermal performance reduces energy costs and Australia’s greenhouse gas emissions.

The aim of the scheme is to help consumers evaluate the relative energy performance of different types of windows and then make an informed decision suited to their needs.

WERS is an independent scheme owned and managed by the Australian Window Association with the full support of the window industry. Independent of any one manufacturer, WERS is a fair, rigorous and credible system for rating the energy performance of windows and glazed doors.

WERS follows all AFRC protocols and processes as required by the Building Code of Australia and is an accredited AFRC member.

U-Value & Solar Heat Gain Coefficient

U-Value (Uw) measures how readily a product conducts heat. It is a measure of the rate of non-solar heat loss or gain through a material or assembly. The rate of heat is indicated in the terms of the U-Value of a window assembly which includes the effect of the frame, glass, seals and any spacers. The lower the U-Value, the greater a window's resistance to heat flow and the better its insulating value.

Solar Heat Gain Coefficient (SHGCw) measures how readily heat caused by sunlight flows through a product. The SHGC is the fraction of incident solar radiation admitted through a window, both directly transmitted, and absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.

*Cover photos courtesy of ALSPEC and G.James Glass & Aluminum
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SAMPLE

A Guide to What Window Where

Climate zones 1, 2 & 3  (Darwin, Brisbane, Northern Australia)

- Cooling climate – Slightly lower Uw and low SHGCw
- Uw may range between 5 to 7.9
- SHGCw may range between 0.4 to 0.65
- This means Low-E, tints, small % IGU’s and frames with improved thermal performance

Climate zones 4 & 5 (Sydney, Perth, Adelaide)

- Mixed climate – Lower Uw and lower SHGCw
- Uw may range between 3.5 to 7.0
- SHGCw may range between 0.6 to 0.8
- This means a mix of IGU’s, Low-E, tinted products and frames with improved thermal performance

Climate zones 6, 7 & 8  (Melbourne, Canberra, Hobart, Thredbo)

- Heating climate –Low Uw and generally higher SHGCw
- Uw may range between 3 to 5
- SHGCw of around 0.8
- This means IGU’s, Low-E and frames with improved thermal performance

Information is a guide. Only a WERS accredited manufacturer can advise you on the right windows to suit your home or building.
Identifying Compliant Windows & Doors

All residential windows and doors must be marked with a Performance Label that confirms the windows or doors are certified to comply with Australian Standard 2047. If you purchase products from an accredited AWA member, you can also receive a Compliance Certificate that supports a minimum 6 year warranty.

Compliance with Energy Efficiency Requirements

Manufacturers participating in WERS offer custom rated high performance products that comply with the procedures and protocols of WERS is an accredited members of AFRC.

Check your supplier’s WERS Certified Products Table and compliance certificate to ensure compliance with the Building Code of Australia.

Did You Know?

- Members manufacture window and door products in compliance with all relevant Australian Standards
- Members verify their windows’ design performance using a NATA accredited testing laboratory
- Members performance label their windows to the required ‘wind pressure’ and ‘water penetration’ requirements of AS2047
- Members provide windows that will make your home more comfortable, reduce energy costs and conform to the solution paths for energy efficiency within the Building Code of Australia

Don’t take any chances! All AWA & WERS members undergo testing and auditing to verify performance claims of products.

Choose AWA & WERS Members