

WINDOW ENERGY RATING SCHEME



Australasian Window Council Inc.

www.wers.net

CUSTOM ENERGY RATING REPORT

for

CRANE WINDOWS

Release 2.0

1 November 2002

Australian Window Association

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WERS Rating Results

Australian Window Association, Inc.

Client:: Crane Windows

Window Energy Rating Scheme Report, Release 2.0, 30 October 2002

Window Product/Frame	Glazing	COOLING	HEATING	COOLING	HEATING	U _w	SHGC _w	SHR _w	T _{vw}	T _{dw}	Air Infil.
		STARS	STARS	% IMPR.	% IMPR.						
AMP Double-Hung	3mm clear	1.0	2.0	12%	21%	4.78	0.80	20%	0.77	0.72	3.4
AMP Double-Hung	ComfortPlus solar control low-e	3.5	2.5	46%	24%	3.53	0.54	46%	0.51	0.24	3.4
AMP Double-Hung	Energy Advantage low-e	2.0	3.5	31%	32%	3.34	0.68	32%	0.70	0.59	3.4
Mk7 Sliding Window	3mm clear	1.0	2.0	11%	22%	4.74	0.81	19%	0.79	0.72	2.1
Mk7 Sliding Window	ComfortPlus solar control low-e	3.0	2.5	46%	25%	3.47	0.54	46%	0.52	0.24	2.1
Mk7 Sliding Window	Energy Advantage low-e	2.0	3.5	30%	33%	3.27	0.69	31%	0.72	0.59	2.1
Mk7 Sliding Window	3/12/3 IGU clear glass	2.0	4.0	26%	39%	2.92	0.73	27%	0.72	0.60	2.1
Mk7 Sliding Window	6.38/8/3 IGU with ComfortPlus solar control low-e outer and argon gas fill	4.0	3.5	58%	36%	2.24	0.47	53%	0.47	0.22	2.1
Mk7 Sliding Window	3/12/4 IGU with Energy Advantage low-e inner and argon gas fill	2.5	5.0	35%	48%	2.02	0.68	32%	0.66	0.50	2.1

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		STARS	STARS	% IMPR.	% IMPR.						
Mk10 Awning Window	3/12/3 IGU clear glass	2.0	4.0	27%	38%	2.99	0.72	28%	0.71	0.60	1.1
	6.38/8/3 IGU with ComfortPlus solar control low-e outer and argon gas fill	4.0	3.5	59%	34%	2.33	0.47	53%	0.46	0.22	1.1
	3/12/4 IGU with Energy Advantage low-e inner and argon gas fill	2.5	5.0	35%	46%	2.11	0.67	33%	0.65	0.50	1.1

Notes:

1. Subscript 'w' refers to whole-window properties, which apply to all parameters except the *damage-weighted fading transmittance*, T_{dw}, which applies to the glazing system only.
2. U_w is the whole-window *U-value*, measured in W/m².K.
3. SHGC_w is the whole-window *solar heat gain coefficient*, the ratio of total solar heat gain divided by the incident outside solar irradiance.
4. SHR_w is *solar heat rejected* and is equal to (1 – SHGC), expressed as a percentage.
5. T_{vw} is the whole-window *visible (light) transmittance*, the ratio of light transmitted divided by the incident outside light.
6. T_{dw} is the glazing-only *damage-weighted transmittance*, weighted according to the Krochmann Damage Function, and is the ratio of fade-causing light transmitted, divided by the incident outside fade-causing light.
7. Percentage improvement figures are compared with using base-case Generic Window 1 (3mm clear in standard aluminium frame).
8. A negative percentage improvement figure indicates performance worse than the base-case window.
9. A positive percentage improvement figure indicates performance better than the base-case window.
10. Maximum air infiltration at a positive pressure difference as measured according to AS 2047. Rating invalid unless window otherwise meets all requirements of AS 2047.
11. Static performance (U_w, SHR_w, SHGC_w, T_{vw}, T_{dw}) calculated using Optics 5, Window 5 and Therm 2.1 software (Lawrence Berkeley National Laboratory), 2000-2001.
12. Annual energy performance (stars and % improvements) calculated using Nationwide House Energy Rating Software (NatHERS) according to procedures of WERS 2000 (Australasian Window Council), www.wers.net