

# Walshs Insulated Glass Units (IGU) Technical Guide

## Understanding this guide

<b>Nominal Thickness</b>	Identifies the glass thickness. For double-glazed products, the first and last numbers is the thickness of each glass panel, and the middle number is the width of the gap in-between.
<b>Visible Light Transmission</b>	The percentage of visible light that passes directly through the glass. The higher the percentage, the more daylight gets through.
<b>Visible Light Reflection</b>	The percentage of visible light reflected toward the exterior.
<b>Solar Transmission</b>	The percentage of normal incident visible light and solar energy that passes directly through the glazing.
<b>Solar Reflection</b>	The percentage of normal incident visible light and solar energy reflected toward the exterior.
<b>UV Transmission</b>	The percentage of UV light transmitted measured in the light range of wave lengths shorter than 380 nanometres. A lower number is better.
<b>U Value</b>	The measure of the rate of heat gain or loss through glazing caused by environmental differences between indoor and outdoor air. The lower the value the better the insulation.
<b>SHGC – Solar Heat Gain Coefficient</b>	The proportion of total solar radiation that is transferred through glass in normal circumstances. A lower number indicates a better performance.
<b>Shading Coefficient</b>	The ratio of solar heat gain through glass relative to that through 3mm clear glass. A lower number indicates a better performance.
<b>RW – Weighted Sound Reduction Index</b>	Used to measure the effectiveness of the glass as a noise insulator. Measured in decibels (db) the higher the RW value, the greater the reduction in noise.
<b>Coated surface position ie: (#2)</b>	Where # appears next to a product name, i.e. (#2), this identifies the position of the coated surface of the glass. Glass surfaces are counted from the exterior to the interior of the building.

# Acoustic Glass

A proven, superior alternative to standard glazing – Walshs Glass' Acoustic Laminate can be used across a wide range of internal and external applications, and in environments where external noise can be problematic such as homes, offices, and hospitals. It can also be incorporated into double-glazed units for increased thermal properties, improving energy efficiency.

Product Name	Nominal Thickness mm	Visible Light		Solar Energy		UV Trans. %	U Value	SHGC	RW	
		Trans. %	Reflect Out %	Trans. %	Reflect Out %					
Clear	6.5	87	8	72	7	<1	5.7	0.78	36	
	10.5	87	8	70	7	<1	5.6	0.77	39	
	12.5	87	8	69	7	<1	5.5	0.76	40	
Grey	6.88	42	5	45	5	<1	5.7	0.61	36	
	10.88	41	5	42	5	<1	5.5	0.58	39	
	12.88	41	5	40	5	<1	5.5	0.58	40	
Translucent	6.88	68	7	58	6	<1	5.7	0.69	36	
	10.88	66	7	53	6	<1	5.5	0.66	39	
	12.88	66	7	52	6	<1	5.5	0.65	40	
Clear	6.5	81	11	62	9	<1	3.6	0.67	36	
	10.5	80	10	57	9	<1	3.6	0.64	39	
Neutral	6.5	60	8	42	7	<1	3.6	0.52	36	
	10.5	59	8	38	7	<1	3.6	0.49	39	
Grey	6.88	39	6	39	6	<1	3.6	0.50	36	
	10.88	38	6	35	6	<1	3.5	0.47	39	
Translucent	6.88	63	8	51	7	<1	3.6	0.59	36	
	10.88	62	8	46	7	<1	3.6	0.56	39	
Double Glazed							Argon			
Clear (#2)	6.5+12+6	67	18	44	14	<1	1.5	0.57	38	
	10.5+12+6	66	18	41	12	<1	1.5	0.53	41	
Neutral (#2)	6.5+12+6	49	12	31	9	<1	1.5	0.41	38	
	10.5+12+6	49	12	28	9	<1	1.5	0.38	41	
Grey (#2)	6.88+12+6	32	8	27	8	<1	1.5	0.38	38	
	10.88+12+6	31	8	24	7	<1	1.5	0.36	41	
Translucent (#2)	6.88+12+6	52	13	36	10	<1	1.5	0.48	38	
	10.8+12+6	51	12	33	10	<1	1.5	0.45	41	

Common Sound Levels		Recommended Interior Noise Levels	
Environment	dB	Environment	dB
Threshold of hearing	0	Bedroom	30–40
Conversational speech	65	Classroom	35–40
Average traffic (kerbside)	70	Living room	40–45
Busy traffic	75	Private office	40–45
Loud traffic	80	Open office	45–50
Live band (20 metres)	105		

The data is measured using glass only and all care should be taken when evaluating our published data that the same environmental conditions have been used. For the most up-to-date information, please visit our website. All performance data is calculated using LBL Windows 7.4 software. NFRC 100-2001 conditions have been used.