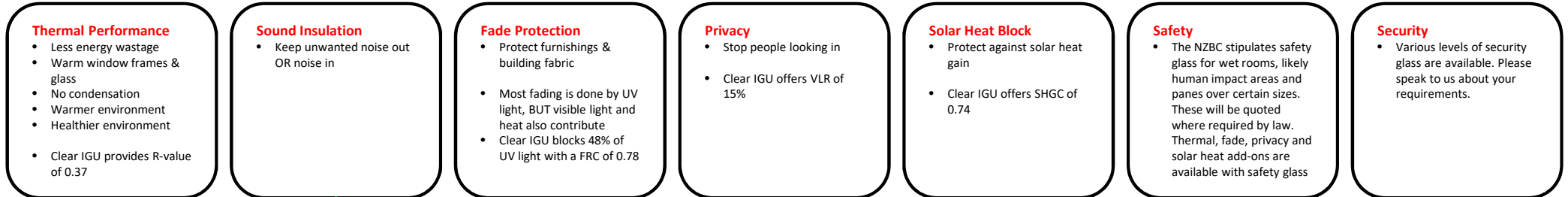
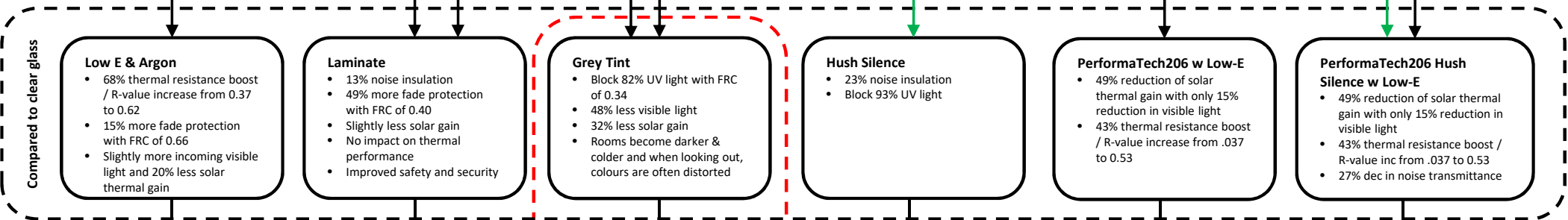


# Glass Selection Flow Chart: What Do You Want To Achieve?

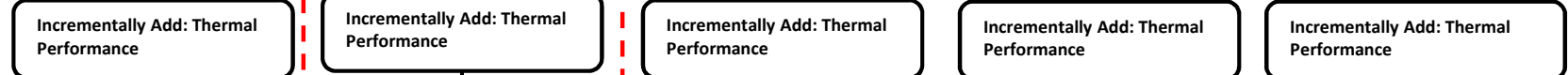


Obscure glass

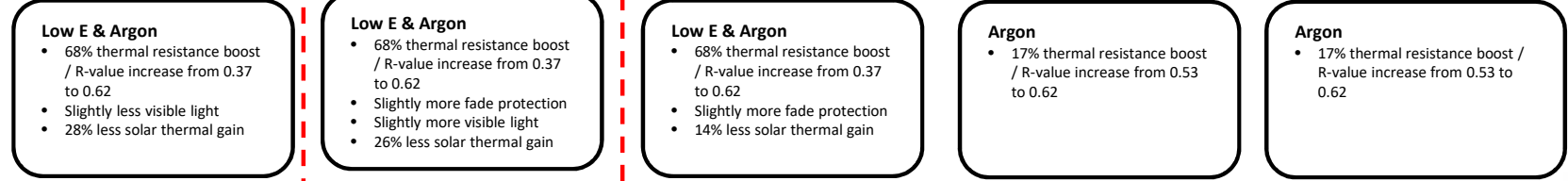
- Abbreviations**
- IGU – Insulated Glazing Unit (double glazed)
  - R-value – measure of thermal resistance
  - UV – Ultra Violet light
  - FRC – Fade Reduction Coefficient
  - VLT – Visible Light Transmittance
  - SHGC – Solar Heat Gain Coefficient
  - Rw – Sound Reduction Index
  - NZBC – NZ Building Code



Compared to clear glass



Clear glass with Low E & Argon is selected by more than 90% of our clients. It's a high-volume manufactured product so offers very good value for money.



- Risks**
- The combination of tints and Low E & Argon increase the risk of glass thermal stress, so toughened glass must be used.



# Glass Selection: Facts and Figures

IGU	Outer	Inner	Argon	VLT %	VLR %	UV Elim %	FRC	R-value	SHGC	Rw
4-12-4	Clear	Clear		80	15	48	0.78	0.37	0.74	30
5-12-6.4	Clear	Clear Lam		79	14	99	0.40	0.37	0.71	34
4-12-4	Clear	Clear	Y	80	15	48	0.78	0.39	0.74	30
4-12-4	Clear	Low E		81	13	51	0.66	0.53	0.59	30
4-12-6.4	Low E	Clear Lam		72	13	99	0.35	0.53	0.51	35
4-12-4	Clear	Low E	Y	81	14	51	0.66	0.62	0.59	30
6.4-12-4	Clear Lam	Low E	Y	77	14	99	0.35	0.62	0.51	33
5-12-4	Grey	Clear		42	8	80	0.39	0.37	0.50	31
6-12-6.4	Grey	Clear Lam		34	8	99	0.22	0.37	0.38	35
5-12-4	Grey	Low E		43	7	82	0.34	0.53	0.37	31
5-12-4	Grey	Low E	Y	43	7	82	0.34	0.62	0.37	31
6.5-12-4	Hush Silence	Clear		79	14	93	0.40	0.36	0.71	37
4-12-6.5	Low E	Hush Silence	Y	77	14	95	0.35	0.62	0.61	37
5-12-4	PerformaTech206 incl Low E	Clear		68	13	76	0.35	0.53	0.38	31
6-12-6.5	PerformaTech206 incl Low E	Hush Silence		68	13	76	0.35	0.53	0.38	38
5-12-4	PerformaTech206 incl Low E	Clear	Y	68	13	76	0.35	0.62	0.38	31
6-12-6.5	PerformaTech206 incl Low E	Hush Silence	Y	68	13	76	0.35	0.62	0.38	38

**IGU** - Insulated Glazing Unit: figures represent glass thickness / air gap / glass thickness.

**VLT** - Visible Light Transmittance: the percentage of visible light that is transmitted through the glass.

**VLR** - Visible Light Reflectance: the percentage of visible light that is reflected by the glass surface.

**UV Elim**: The percentage of ultraviolet radiation eliminated by the glass. The higher the percentage the less UV is transmitted.

**FRC** - Fade Reduction Coefficient: The ratio of fading reduction of a glass type when compared to the fading protection of 3mm clear float. The FRC of 3mm clear float is by definition 1.0 and represents the minimum fading protection offered by standard glazing. The lower the fading reduction coefficient, the better the fading protection offered.

**R-value**: a measure of thermal resistance used in the building and construction industry. The higher R-value, the greater the thermal resistance. The figures above describe glass-only figures i.e. not an entire window or door. NK Windows entire window R-values are up to 0.84 for double glazing and 1.20 for triple glazing.

**SHGC** - Solar Heat Gain Coefficient: The measure of the total solar energy transmittance entering a building through the glazing as heat gain. The lower the SHGC the better the glass restricts heat energy transmission.

**Rw** - Weighted Sound Reduction Index: The higher the Rw, the greater the reduction of noise transmittance.