TINTED GLASS

Produced by adding a colourant during the manufacture of clear float glass, tinted glass provides a greater degree of solar control for buildings when compared to single clear glass. Most common colours are grey, green and blue tones.

Tinted glass works by absorbing the sun's direct heat energy (like a dark coloured shirt on a warm day) with re-radiation and convection through air movement drawing away the heat build up in the glass.

FEATURES AND APPLICATIONS

- Solar control function by reducing the sun's direct heat energy through the glass;
- Reducing cooling energy costs;
- Reducing glare;
- Low external reflectance;
- Improving privacy during daytime;
- Permanent colour – Also called a body tinted glass as the tint is an integral part of the glass. The colour cannot be removed.

RANGE

- 4/5/6/8/10/12mm Grey
- 5/6mm Dark Grey
- 6mm SuperGrey™
- 5/6mm Green
- 6mm SuperGreen™
- 6mm Dark Blue
- 6mm Bronze

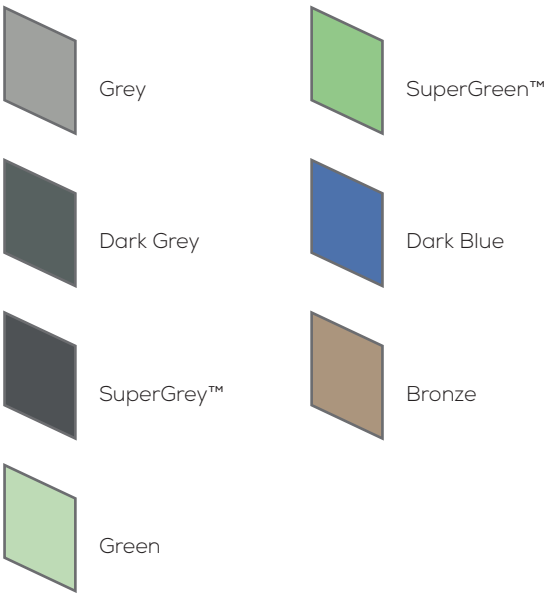
DESIGN AND GLAZING NOTES

Thermal Breakage - The thicker the tinted glass, the darker the appearance and colour becomes.

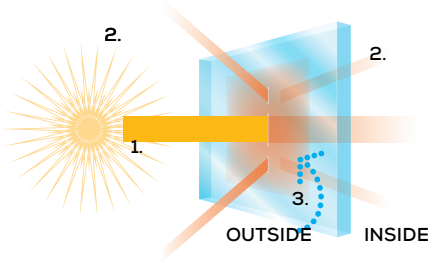
As the thickness increases, the glass absorbs more heat and therefore maybe more prone to thermal breakage if glazed in annealed form. Toughening or heat strengthening will prevent these breakages.

Glass edges – Before glazing, annealed glass edges must be 'good' straight and clean cut with minimal defects. Under no circumstances should glass be glazed with damaged edges.

COLOUR OPTIONS



HOW TINTED GLASS WORKS



1. Sun's direct intensity strikes the surface of the glass, the tinted glass partially absorbing and transmitting the energy.
2. The absorbed portion of heat in the glass is re-radiated both inside and outside.
3. Air movement helps to draw the heat away.

TINTED GLASS

SINGLE GLASS PERFORMANCE VALUES					
	VLT VISIBLE LIGHT TRANSMISSION	VLR VISIBLE LIGHT REFLECTANCE	VLRi VISIBLE LIGHT REFLECTANCE	SHGC	U-VALUE
COLOUR AND TYPE	%	EXTERNAL %	INTERNAL %		W/M2K
5mm Bronze (VFloat™)	54	6	6	0.64	5.9
6mm Bronze (VFloat™)	51	5	5	0.65	5.8
10mm Bronze (VFloat™)	34	5	5	0.54	5.7
5mm Dark Grey	22	4	4	0.57	5.8
6mm Dark Grey	15	4	4	0.53	5.8
5mm Green (Panasap)	74	6	6	0.60	5.8
6mm Green (Panasap)	70	6	6	0.56	5.8
4mm Grey (Euro)	56	6	6	0.69	5.9
5mm Grey (Euro)	50	5	5	0.65	5.8
6mm Grey (Euro)	44	5	5	0.61	5.8
8mm Grey (Euro)	34	5	5	0.55	5.7
10mm Grey (Euro)	26	4	4	0.50	5.7
12mm Grey (Euro)	20	4	4	0.47	5.6
6mm Dark Blue	58	6	6	0.59	5.8
6mm Super Green	67	6	6	0.52	5.8
6mm Super Grey	9	4	4	0.35	5.8
DUO PLUS (IGU'S)					
4mm Grey 12mm / 4mm Clear	50	8	12	0.58	2.6
5mm Grey 12mm / 5mm Clear	44	7	12	0.52	2.6
6mm Grey 12mm / 6mm Clear	39	7	11	0.48	2.5
6mm Dark Grey 12mm / 6mm Clear	13	5	11	0.39	2.5
6mm Green 12mm / 6mm Clear	62	10	12	0.44	2.5
6mm SuperGreen 12mm / 6mm Clear	59	10	12	0.40	2.5
6mm SuperGrey 12mm / 6mm Clear	8	4	11	0.21	2.5

Data listed based on NFRC 100-2010. Duo Plus™ units with 12mm Argon Gas filled space.
VLT% - refers to % visible light transmittance. Simply a measure of the amount of natural daylight the glass allows through.
VLR% - refers to visible reflectivity of the glass viewed from the outside. VLRi% - refers to visible reflectivity when viewed from inside.
SHGC - refers to Solar Heat Gain Co-efficient and is a common measure used in regards the cooling of the building. The lower the number, the more efficient the glass in reducing the sun's direct energy impact through the glass.
U-Value - a measure of the thermal insulation of the glass and expressed as watts per square metre. The lower the number the better the performance of the glazing.