

## GREEN BUILDING INDEX POINTS & CRYSTAL SAFETY GLASS PRODUCT

Category	Intent	Requirements	Examples of CSG Products
<b>GBI Category: Energy Efficiency (EE)</b>			
<b>EE1 Minimum EE Performance (1 point)</b>	To create energy efficiency (EE) awareness and promote the use of MS1525.	OTTV $\leq$ 50 (Calculation using BEIT software) and provision of Energy Management Control system where air-conditioned space $\geq$ 4000m <sup>2</sup> .	For instance, achieving of CSG "spectrally selective" tinted or CSG Low-E glass with luminous efficacy of 1.0 or higher.
<b>EE5 Advance EE Performance (1-15 points)</b>	To encourage enhancement of building EE performance thereby reducing CO <sub>2</sub> emission.	Exceed EE Performance better than the baseline minimum to reduce energy consumption in the building. Achieve improvement of Building Energy Intensity (BEI) as defined under GBI reference.	For instance, CSG Laminated or CSG Double Glazing unit with Low-E products provide excellent solar and thermal control while allowing significant visible and natural light into buildings.
<b>GBI Category: Indoor Environmental Quality (EQ)</b>			
<b>EQ8 Daylighting (1-2 points)</b>	To encourage use of diffused daylighting into interior of building.	Demonstrate that $\geq$ 30% (1 point) or $\geq$ 50% (2 points) of the NLA (Nett Lettable Area) has a Daylight Factor in the range of 1.0 – 3.5% as measured at the working plane, 800mm from floor level, OR	CSG provides a wide array of clear, tinted and coated glass with varying levels of visible light transmittance combined with solar and thermal control. For example, CSG DGU Low-E glass provides 50% or more visible light transmittance for areas requiring daylight transmittance.
<b>EQ9 Daylight Glare Control (1 point)</b>	To reduce discomfort of glare from natural light.	Reduce discomfort of glare from natural light. Where blinds or screens are fitted on glazing and atrium as a base building, incorporate provisions to meet the following criteria; 1. Eliminate glare from all direct sun penetration and keep horizontal workspace luminance level below 2000 lux; 2. Eliminate glare from diffused sky radiation for occupant workspace at viewing angles of 15° to 60° from the horizontal at eye level (typically 1.2m from floor level); 3. Control with an automatic monitoring system (for atrium and windows with incident direct sun light only – not applicable for fixed blinds/screens); AND 4. Equip with a manual override function accessible by occupants (not applicable for fixed blinds/screens).	CSG offers lustrous colour of high performance tinted and coated glass with varying levels of glare control. For example, CSG Laminated Blue Reflective Low-E glass helps to control glare and subsequently reduces the need for blinds or shades.
<b>EQ12 External Views (1-2 points)</b>	To reduce eyestrain for building occupants by providing long distance views and visual connection to the outdoor.	Demonstrating that $\geq$ 60% (1 point) or $\geq$ 75% (2 points) of the NLA has a direct line of sight through vision glazing at a height of 1.2m from floor level.	CSG provides a wide array of clear, tinted and coated glass with varying levels of visible light transmittance combined with solar and thermal control. For example, CSG DGU Low-E glass provides 50% or more visible light transmittance for areas requiring daylight transmittance.
<b>EQ13 Internal Noise Levels (1 point)</b>	To ensure building is designed to maintain a comfortable acoustic environment for occupants.	Demonstrate that 90% of the NLA do not exceed the following ambient internal noise level: 1. Within the entire building general office, space noise does not exceed 40dB(A)eq OR 2. Within the baseline building office space, the sound level does not exceed 45dB(A)eq for open plan and does not exceed 40dB(A)eq for closed offices.	CSG offers various glass thicknesses and glazing methods (CSG Laminate, CSG IGU or combinations of the two) that is effective at controlling the sounds transmit.
<b>GBI Category: Material &amp; Resources (MR)</b>			
<b>EQ13 Internal Noise Levels (1 point)</b>	To encourage designers to specify the usage of recycled content materials in new buildings. Increase demand for building products that incorporate recycled content materials in production.	Where use of materials with recycled content is such that the sum of post-consumer recycled plus one-half of the pre-consumer content constitutes $\geq$ 10% (1 point) or at least 30% (2 points) based on cost of the total value of the materials in the project.	CSG always monitor the quantum and value of the recycled content of the glass purchased from our suppliers.