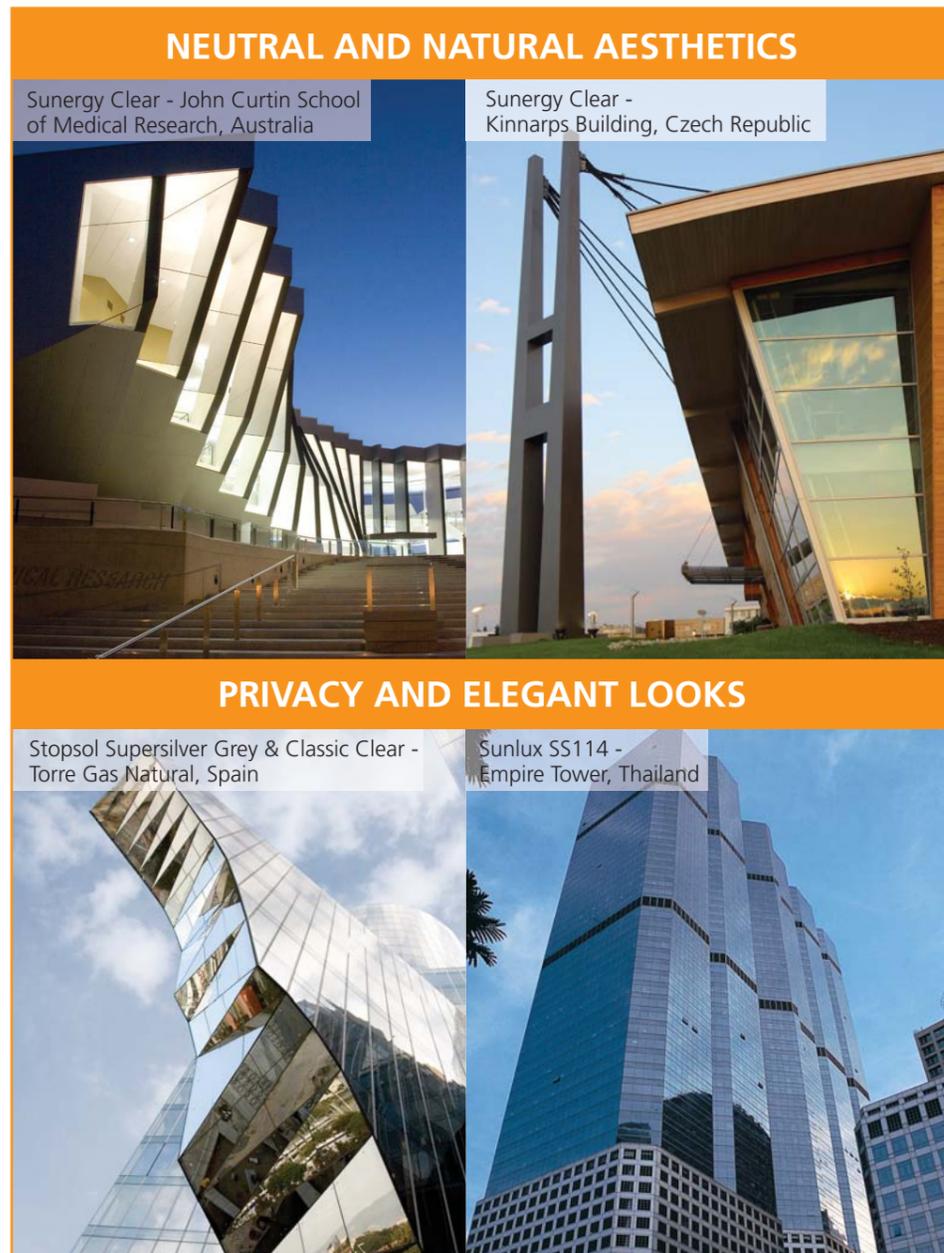


### 3 Aesthetic Choices (Visual Comfort Choices)

When choosing a glass, the desired appearance of the building is just as important as its performance. Our new tool allows you to visualize the comfort of your choice by providing the optical performance, indicating its color aspect and transparency. Our wide range of glass allows facade designers to further express their creativity to a higher level.



#### Online Tool

To further understand how this tool will revolutionize the way you select your glazing, please visit us at [www.agc-flatglass.sg](http://www.agc-flatglass.sg)

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# COMFORT Redefined



Creating a thermally comfortable environment is one of the most important parameters to be considered when designing buildings especially in a warm tropical climate.

However, little attention was paid on the holistic well-being of people.

Comfort should be defined as a total benefit of thermal comfort, energy efficiency and aesthetically appealing.

#### Clearly Your Choice



# AGC introduces new concept of comfort to help you with your glass selection in a hot climate.

## Are you clear about thermal comfort?

Thermal comfort simply describes a person's state of mind — whether he feels too hot or too cold.

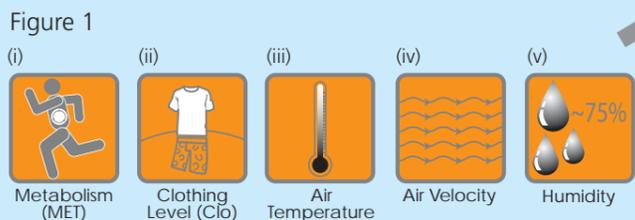
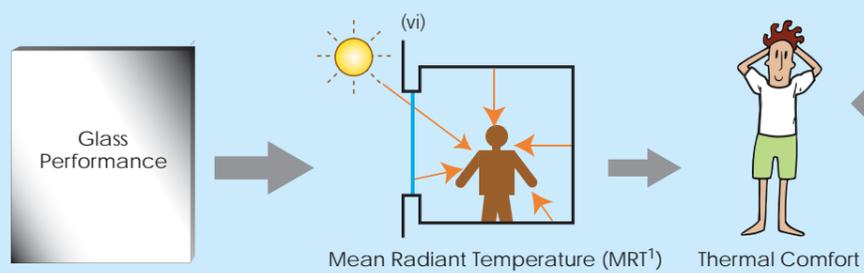
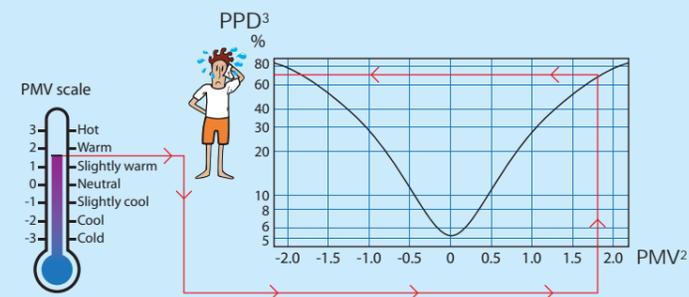
To determine the thermal comfort, it is necessary to consider more than just the room temperature. There are six parameters (figure 1) affecting thermal comfort which include a combination of environmental and personal factors. And one of six parameters is MRT<sup>1</sup>, which depends largely on the glass performances. Ultimately, thermal comfort can be objectively described by PMV<sup>2</sup> and PPD<sup>3</sup>.

## Are you clear about the importance of comfort measurement?

If we do not feel comfortable in an environment, our working performance will suffer inevitably, affecting our productivity and effectiveness.

Currently, there are available energy indexes that help to evaluate performance of glazing.

However, these are inadequate to measure REAL THERMAL COMFORT.



<sup>1</sup> MRT (Mean Radiant Temperature) is one of the sensory indexes showing heat feeling.  
<sup>2</sup> PMV (Predicted Mean Vote) is the mean value classification of thermal comfort of people in view of the 6 comfort parameters. (ISO 7730)  
<sup>3</sup> PPD (Predicted Percentage of Dissatisfaction) is the conversion of PMV into percentage curve. It seeks to predict the % group of people on how they feel.

## Clearly The Revolutionary Tool

In view of this, AGC has developed a revolutionary software that empowers users to select glazing through the evaluation of:

- Thermal comfort performances
- Energy efficiency
- Aesthetic factors

## Are you clear about your benefits?

### 1 The Thermal Comfort Experience

Comfort indexes act as a yardstick to measure and compare the thermal comfort performances of different glazing.

Float	Coating			
Clear Float	Stopsol SuperSilver Green	Stopsol Classic Green	Sunergy Green	Sunlux SS20 Green
PPD 85.6% MRT 40.1°C	PPD 28.1% MRT 33.5°C	PPD 18.5% MRT 32.0°C	PPD 14.8% MRT 31.3°C	PPD 8.0% MRT 29.5°C
Lower Comfort	Higher Comfort			

\*\* Above indexes are calculated based on tropical climate conditions.

These calculations, simulated by our software, would allow designers to understand the performances of glazing better and create a more comfortable building, leading to better occupants' health, work efficiency and satisfaction.

### 2 Energy Saving and Cost Effective

A frequently asked question is – What is the energy savings of a higher performances glass? The tool provides you with the answer and comparison.

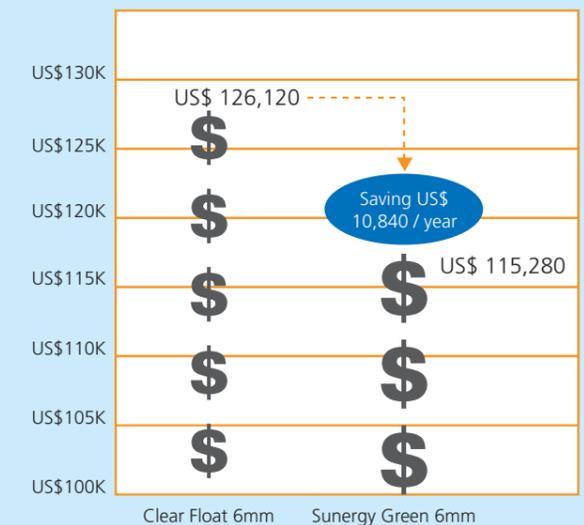
Below is an example based on a mid-size 4-storey building and glazing area of 1280 sqmt in Singapore. (based on assumption that life cycle of the building is 10 years)

Figure 2

Glazing Type	Cost Down	
	Amount/ sqmt/year (A) = Clear - other	Amount/10 year (B) = (A) x 10 x 1280m <sup>2</sup>
Clear Float	-	-
Reflective Glass (Stopsol Silver Green)	US\$7.48	US\$96K
Low Reflective Solar Control Glass (Sunergy Green)	US\$8.47	US\$108K
Solar Control Glass (Sunlux SS20 Green)	US\$12.16	US\$156K

\*\*Based on comparison against clear float as a base.

Figure 3 Comparison of electrical cost (Singapore) based on Clear float and Sunergy coated glass



A saving of US\$10,840 per year.

\*\* All values are calculated based on 6mm thickness glass.  
 \*\* Energy consumption values are calculated by eQuest software. The above points indicate the values of figure 2 and 3.