

**FOR IMMEDIATE RELEASE**

**With a triple silver coating, AGC’s Ecoglass contributes to energy saving in buildings by filtering out 75% of solar heat; AGC to launch Sunbalance™ Triple Cool in November**

**Tokyo, October 17, 2012**—AGC (Asahi Glass Co., Ltd.; Head Office: Tokyo; President & CEO: Kazuhiko Ishimura) has developed Sunbalance™ Triple Cool, which is the first triple-silver-coated glass product to be manufactured in Japan. Featuring the highest energy efficiency among AGC’s product lineups, this new Ecoglass product ensures indoor brightness while dramatically reducing incoming solar heat. Its production will take place at leading-edge facilities introduced at the Kashima Plant this spring. Product release is scheduled for November 2012.

Demand for more energy-efficient buildings is surging against a backdrop of the increasing need to save electricity and reduce environmental impact in the current energy situation. Especially, in commercial buildings where air conditioning requires large amounts of energy, single-sheet flat glass used as window panes is a drawback in energy-saving efforts as large amounts of heat flow in and out through the windows.

The solution is Ecoglass, and it is drawing increasing attention for its high energy-saving effects throughout the year. In summer, however, even greater heat shielding performance has been required to meet the tight electricity supply conditions during the hot season.

To meet this need, AGC has developed Sunbalance™ Triple Cool, a new Ecoglass product with enhanced heat shielding performance for commercial buildings. For its excellent heat-shielding performance, this product is also suitable for use as a top light material for residential application.

**Sunbalance™ Triple Cool**



AGC will deliver solutions for environment/energy issues by leveraging its cutting-edge glass coating technologies and offering high-performance, energy- and power-saving glass products.

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<Reference>

Comparison of performance with existing products for commercial buildings

With its triple silver coating, the new product improves heat shielding performance by drastically reducing the solar heat gain coefficient ( $\eta$ -value) to 0.26, while achieving a visible light transmission ratio ( $T_v$ ) of 50%. It successfully ensures a bright indoor environment, while filtering out high levels of solar radiation.

Product name	Silver coating	Glass structure (exterior glass—air layer—interior glass)	Thermal transmission coefficient (U-value)	Solar heat gain coefficient ( $\eta$ -value)	Visible light transmission ratio (%)
Triple Cool	3 layers	SBN 6 mm + A 12 mm + 6 mm	1.62	0.26	49.6
Premium Cool	2 layers	SBR 6 mm + A 12 mm + 6 mm	1.64	0.31	59.4
Silver	1 layer	SBS 6 mm + A 12 mm + 6 mm	1.80	0.55	70.4

< Supplementary data >

Heat-reflective glass	SKFC6 mm +A12 mm + 6 mm	2.85	0.61	57.8
High heat-shielding heat-reflective glass	SS86 mm +A12 mm +6 mm	2.36	0.16	7.7
Single sheet glass	6 mm	5.86	0.85	89.4

\*Ecoglass

Ecoglass is the generic name for Low-E double-glazed products manufactured by three members of the Flat Glass Manufacturers Association of Japan (Asahi Glass Co., Ltd., Nippon Sheet Glass Co., Ltd., and Central Glass Co., Ltd.). Low-E double-glazed glass is a double-glazed glass that uses glass coated with a special metal film (Low-E glass). With its excellent heat insulating/shielding performance, Low-E double-glazed glass prevents heat from passing in and out through glass and ensures ideal interior comfort both in hot summers and cold winters.

\*Thermal transmission coefficient (U-value):

Indicates the amount of heat that passes through an area of  $1 \text{ m}^2$  when the difference in temperature inside and outside the glass is one degree Celsius. The unit is  $\text{W}/\text{m}^2 \text{ k}$ . As the U-value of glass decreases, its thermal insulation performance increases and heating load decreases.

\*Solar heat gain coefficient ( $\eta$ -value):

Indicates the ratio of the amount of heat that flows into a room assuming the  $\eta$ -value of light incident on a glass surface is 1. As the  $\eta$ -value of glass decreases, its heat shielding performance increases and cooling load decreases.

\*Visible light transmission ratio

The rate at which electromagnetic waves that a human can perceive when light pass through.

As the visible light transmission ratio of glass increases, more light is transmitted into a room to make the indoor environment brighter.

\*Special metal film of Low-E glass

Low-E film currently used in Japan is mainly a silver (Ag)-based film made by a vacuum sputtering method. Another type is a SnO<sub>2</sub>-based Low-E film made by a chemical vapor deposition (CVD) method, which uses the high temperatures generated when flat glass is produced.

Silver-based Low-E films are classified into film with a single layer of silver coating, film with two layers of silver coating, and film with three layers of silver coating, which is used in Sunbalance™ Triple Cool, the product to be launched. Generally, heat insulation performance increases in the order of SnO<sub>2</sub>-based film, film with single silver coating, film with double silver coating, and film with triple silver coating.