

Sungate® 100 Low-E Glass

China

Sungate 100 Low-E Glass

Introduced in 1983 as the world's first commercially available low-e glass, *Sungate 100* glass continues to be a popular choice for commercial buildings. Its popularity is due to its ability to satisfy the demand for energy-efficient architectural glass and deliver an expanded color palette.

Sungate 100 glass is a single silver low-e coating, which can lower the U-Value of a 24-mm insulating glass unit by 46% (argon-filled). This technology delivers thermal performance to meet Climate Code Compliance for all five zones in China (see chart below for details), while maintaining high visible light transmittance.



Climate Code Compliance Chart	Zone A Harbin	Zone B Changchun	Zone C Beijing	Zone D Shanghai	Zone E Guangzhou
Clear + Clear					
<i>Sungate</i> ® 100 (2) clear	✓	✓	✓		
<i>Solexia</i> ™ + <i>Sungate</i> 100 (3)	✓	✓	✓		
<i>Atlantica</i> ™+ <i>Sungate</i> 100 (3)	✓	✓	✓	✓	✓
<i>Caribia</i> ® + <i>Sungate</i> 100 (3)	✓	✓	✓	✓	✓
<i>Azurria</i> ™ + <i>Sungate</i> 100 (3)	✓	✓	✓	✓	✓
<i>Solargray</i> ® + <i>Sungate</i> 100 (3)	✓	✓	✓	✓	

Climate Code Compliance based on Chinese Design Standard for Energy Efficiency of Public Buildings **0.4 < Window to Wall ratio < 0.5**. Glass make-up assumes 6mm exterior lite + 12mm gap + 6mm interior lite. Glass performance calculated using NFRC methodology using LBL Window 5.2 software. Glass meets Zone A requirements when unit is argon filled. All other zones are met with either air or argon filled spaces. See reverse for actual performance values.

Expanded aesthetic and thermal performance options can be achieved by combining *Sungate 100* glass with clear glass or any one of PPG's four *Oceans of Color*® tinted glasses, from the aqua-blue *Azurria*™ glass to the emerald-green *Atlantica*™ glass. Shading Coefficients are as low as 0.38, blocking heat from entering the building.

Sungate 100 glass is just one glass choice from PPG Industries. For more information, visit www.ppgglass.cn.

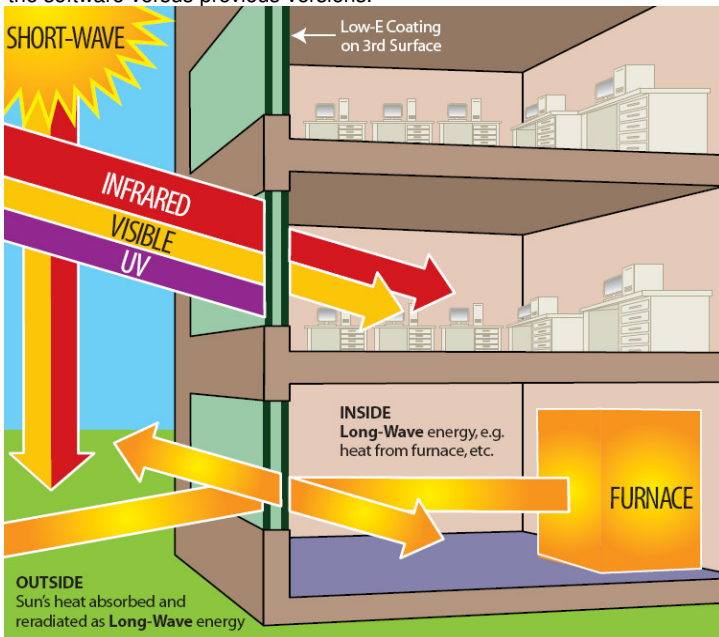
Washington Convention Center MH Concepts ▶
Location: Washington, DC
Product: *Sungate 100* Glass



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Insulating Vision Unit Performance – 24mm units with 12mm gap and two 6mm lites									
Outdoor Lite + Indoor Lite Coating, if any (surface) glass type + Coating, if any (surface) glass type	%T	%R	K-value Winter W/m ² ·°K Air/Argon	Shading Coeff (SC)	Solar Heat Gain Coeff (SHGC)	Light to Solar Gain (LSG)	U-value EN 673 W/m ² ·°K Air/Argon	Solar Factor (g) EN 410	
Clear Glass + Clear Glass	79	15	2.70/2.55	0.81	0.70	1.13	2.8/2.7	0.71	
Sungate 100 (2) Clear + Clear	73	12	1.78/1.51	0.60	0.52	1.41	1.8/1.5	0.54	
Solexia™ + Sungate 100 (3) Clear	63	10	1.78/1.51	0.48	0.41	1.54	1.8/1.5	0.44	
Atlantica™ + Sungate 100 (3) Clear	55	9	1.78/1.51	0.39	0.34	1.62	1.8/1.5	0.36	
Caribia® + Sungate 100 (3) Clear	56	9	1.78/1.51	0.38	0.33	1.70	1.8/1.5	0.36	
Azuria™ + Sungate 100 (3) Clear	56	9	1.78/1.51	0.38	0.33	1.70	1.8/1.5	0.36	
Solargray® + Sungate 100 (3) Clear	36	7	1.78/1.51	0.41	0.35	1.03	1.8/1.5	0.36	

Performance data generated on representative samples of factory production. Actual values may vary slightly due to variations in the product process. Glass performance calculated using NFRC methodology using LBL Window 5.2 software, except CEN U-Value and Solar Factor, which were calculated using CEN methodology using WIS 3.01 software. Variations from previously published data are due to minor changes in the software versus previous versions.



The image illustrates how *Sungate 100* glass works in an insulating glass unit to deliver high visible light transmittance (as much as 73%), and reduced energy costs.

Insulating units with *Sungate 100* glass lower the infrared transmittance to keep interiors cooler and reduce cooling costs. This is illustrated by low SC, SHGC and Solar Factor.

Ultraviolet rays are also reduced to help protect interior furnishings, fabrics and carpets from fading.

Sungate 100 glass also provides better insulation by reducing the long-wave energy flow. This is measured by K-Value and U-Value. Lower K and U-Values mean higher performance. With *Sungate 100*, the K-Value is cut 41%, when the unit is argon-filled.

Availability



As a glass manufacturer, PPG began the Certified Fabricator Program in 2000 to offer quality, locally fabricated low-e glass products to the commercial construction market through independent, quality PPG certified, glass fabricators. *Sungate 100* glass is currently available through PPG International Certified Fabricators in China and will be manufactured in China in 2009.

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PPG Industries

PPG began manufacturing glass in 1883 and has evolved into the chemical and coatings industries, producing automotive, aerospace, architectural and consumer products. PPG operates 125 manufacturing facilities in 20 countries and employs more than 33,000 people.

