

# Sungate® 500 Low-E Glass



**Cleveland Browns Stadium**  
*Location: Cleveland, OH*  
*Products: Azuria™/Sungate® 500 Glass*  
*Architect: Hellmuth, Obata & Kassabaum*  
*Glazing Contractor: R.E. Krug Corp.*  
*Glass Fabricator: Pdc Glass and Metal Services, Inc.*

## Sungate® 500 Low-E Glass Reliability

With more than 200 million square feet shipped in the last 10 years, **Sungate** 500 Low-E Glass is one of the industries most trusted and proven products. And, with the increased emphasis on energy efficiency and green building, the value of this proven technology continues to grow with age.

## Aesthetic Options

**Sungate** 500 coated glass yields the color neutrality of clear uncoated glass, together with dramatically improved performance. When compared with regular clear glass in a one-inch insulating glass unit, **Sungate** 500 glass produces impressive U-Value improvements of 27% and 36% (winter and summer respectively) while transmitting as much as 94% of visible light.

## Sungate® 500 Low-E Glass Versatility

The key advantage of **Sungate** 500 glass is its versatility. In situations that would benefit from passive solar energy, the ability of **Sungate** 500 glass to transmit the warming rays of the sun (as measured by its higher solar heat gain coefficient) can lower heating requirements.

When more stringent solar control measures are required, **Sungate** 500 Low-E Glass can be teamed with a spectrally selective tint from the **Oceans of Color**® collection in a one-inch insulating glass unit. This produces the benefit of high visible light transmittance together with improved solar control and a wide range of aesthetic options.

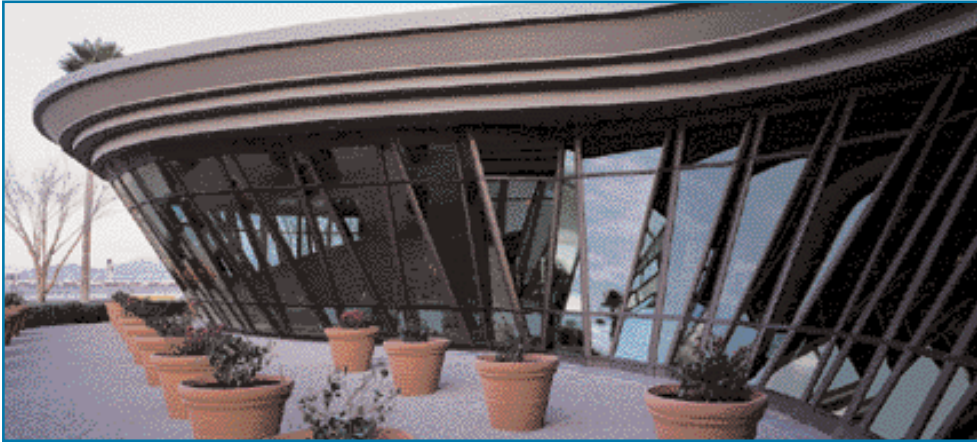
For example, **Sungate**® 500 **Azuria**™ delivers a Light to Solar Gain (LSG) ratio of 1.70, well above the minimum standard for spectrally selective glass\* as defined by the U.S. Department of Energy. Other **Sungate** 500/**Oceans of Color** combinations (see performance chart on back) provide a versatile array of aesthetic options with excellent control and Low-E performance.

\*The U.S. Department of Energy defines spectrally selective glass as glass with a Light to Solar Gain (LSG) ratio of 1.25 or higher.



**PNC Firstside Center**  
*Location: Pittsburgh, PA*  
*Products: Sungate® 500 Glass*  
*Architect: L.D. Astorino Companies*  
*Glazing Contractor: Ajay Glass & Mirror Co., Inc.*  
*Glass Fabricator: Pdc Glass and Metal Services, Inc.*

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*Panevino Restaurant*  
 Location: Las Vegas, NV  
 Products: Caribia®/Sungate®  
 500 Glass  
 Architect: Marnell Architecture  
 Glazing Contractor: Sierra Glass  
 Glass Fabricator: Northwestern  
 Industries, Inc.

## Fabrication

**Sungate** 500 Low-E Glass provides maximum processing flexibility and can be easily laminated, tempered or heat-strengthened to satisfy increased strength or safety glazing requirements. As a pyrolytic or “hard coat,” **Sungate** 500 glass is durable and readily available from nearly 100 glass fabrication locations throughout the U.S. and Canada.

## Additional Resources

**Sungate** 500 Low-E Glass is just one of the  *EcoLogical Building Solutions* from PPG. For more information, or to obtain samples of **Sungate** 500 glass, call 1-888-PPG-IDEA, or visit [www.ppgglazing.com](http://www.ppgglazing.com).

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## Sungate® 500 Glass Performance

Glass Type	Transmittance			Reflectance		U-Value (Imperial)		K-Value (Metric)		Shading Coefficient	Solar Heat Gain Coefficient	Light to Solar Gain (LSG)
	Ultra-violet %	Visible %	Total Solar Energy %	Visible Light %	Total Solar Energy %	Winter Night-time	Summer Day-time	Winter Night-time	Summer Day-time			
<b>Monolithic</b>												
SUNGATE 500 Clear	69	89	79	9	7	1.03	0.93	5.85	5.28	0.96	0.83	1.08
<b>Insulating Vision Unit Performance Comparisons 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites; interior lite clear</b>												
<b>SUNGATE® 500 Low-E Glass</b>												
SUNGATE 500 (2) Clear	42	74	52	17	14	0.35	0.35	1.99	1.99	0.71	0.62	1.19
SUNGATE 500 (3) SOLEXIA	21	64	33	14	9	0.35	0.35	1.99	1.99	0.51	0.45	1.42
SUNGATE 500 (3) ATLANTICA	11	56	25	12	7	0.35	0.35	1.99	1.99	0.41	0.35	1.60
SUNGATE 500 (3) CARIBIA	17	56	24	12	7	0.35	0.35	1.99	1.99	0.40	0.34	1.65
SUNGATE 500 (3) AZURIA	29	57	24	12	7	0.35	0.35	1.99	1.99	0.40	0.34	1.68
SUNGATE 500 (3) Bronze	18	44	33	9	9	0.35	0.35	1.99	1.99	0.53	0.46	0.96
SUNGATE 500 (3) Gray	17	37	28	8	8	0.35	0.35	1.99	1.99	0.47	0.40	0.93
SUNGATE 500 (3) OPTIGRAY 23	6	19	13	6	6	0.35	0.35	1.99	1.99	0.28	0.24	0.79
SUNGATE 500 (3) GRAYLITE	5	11	16	5	6	0.35	0.35	1.99	1.99	0.33	0.28	0.39
<b>SOLARCOOL® Glass (Reflective) with SUNGATE® 500 Low-E (3)</b>												
SOLARCOOL (2) SOLEXIA + Low-E	6	25	15	24	13	0.35	0.35	1.99	1.99	0.31	0.26	0.96
SOLARCOOL (2) CARIBIA + Low-E	5	22	10	19	10	0.35	0.35	1.99	1.99	0.24	0.21	1.05
SOLARCOOL (2) AZURIA + Low-E	8	22	10	20	10	0.35	0.35	1.99	1.99	0.23	0.20	1.10
SOLARCOOL (2) Bronze + Low-E	5	18	17	14	13	0.35	0.35	1.99	1.99	0.34	0.29	0.62
SOLARCOOL (2) Gray + Low-E	5	15	14	11	10	0.35	0.35	1.99	1.99	0.30	0.26	0.58
SOLARCOOL (2) GRAYLITE + Low-E	1	5	9	5	7	0.35	0.35	1.99	1.99	0.25	0.21	0.24

Performance data calculated using LBL Window 5.2. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit [www.ppgglazing.com](http://www.ppgglazing.com) or request our Architectural Glass Catalog.

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